```
Gly Gln Gly Leu Asn Gly Met Gln Asp Asn Trp Asn Ala Pro Ile Ser
          35                  40                  45
Leu Ala Asp Thr Asp Pro Val Ile Pro Gly Ala Gly Arg Asp Leu Glu
          50                  55                  60
Ala Leu Val Ile Cys Arg Val Asn Gly Glu Gly Arg Gly Lys Gly Leu
65                  70                  75                  80
Leu Gly Gly Lys Thr Gly Cys Arg Gly Glu Ala Glu Gly Gly Gly Ala
                  85                  90                  95
Glu Ala Ala Gly Leu Cys Leu Trp
                  100
```

<210> 4124

<211> 138

<212> PRT

<213> Homo sapiens

<400> 4124

```
Met Pro Asp Cys Arg Arg Tyr Gln Gln Pro Val Glu Lys Leu His Gln
1                   5                  10                  15
Cys Trp Gly Ser Tyr Phe Asn Tyr Ser Arg Lys Ile His Phe Leu Leu
                  20                  25                  30
Ser Val Trp Phe His Leu Gly Leu Thr Ser Phe Leu Ala Gly Pro Arg
          35                  40                  45
Phe Val Lys Ser Ile Leu Ile Ser Arg Ile Ile Leu Ala Asn Ser Leu
          50                  55                  60
Pro Arg Phe Ser Phe Pro Ser Phe Gly Gln Leu Ala Trp Phe Val Leu
65                  70                  75                  80

Leu Ile Ser Glu Met Arg Cys Asp Asn Lys Arg Gln Arg Asn Lys Ser
                  85                  90                  95
Met Phe Leu Ala Phe Gly Phe Arg Ser Cys Pro Tyr Gly Lys Glu Lys
                  100                 105                 110
Thr Asn Lys Cys Gly Ile Asp Lys Ile Phe Gly Arg Lys Asp Asn Lys
          115                 120                 125
Ser Arg Lys Glu Phe Leu Arg Gly Arg Lys
```

130   135

<210> 4125

<211> 234

<212> PRT

<213> Homo sapiens

<400> 4125

Met Gln Gly Ser Arg Arg Asp Cys Arg Met Tyr Ala Thr Ala Thr Gly
1   5   10   15

Pro Gly Phe Ser Gly Leu Pro Trp Ala Val His His Pro Leu His Ser
                20   25   30

Pro Ser His Cys Tyr Pro Thr Ser Ala Val Arg Ser Pro Arg Ala His
            35   40   45

Ser Ala Gln Pro Pro Ser Ser Val Pro Ser Gly Pro Phe Thr Pro Cys
        50   55   60

Asp Asn Ser Arg Cys Cys Leu Gly Ser Trp Gly Thr Pro Asp Pro Ser
65   70   75   80

Ser His Gly Ile Ser Ser Arg His Ala Gly Gln Ala Gly Pro Met Ala
                85   90   95

Leu His Leu Ser Pro Ala Ala Trp Gly Cys Pro Val Gly Ala Asp Thr
                100   105   110

Thr Ser Leu Pro Phe Gly Pro Leu Pro Arg Thr His Cys Met Pro Gly
            115   120   125

Trp Gly Asp Gly Gly Arg Glu Lys Ser Gly Arg Phe Pro Ser Trp Arg
        130   135   140

Gly Ser Ala Arg Ala Gly Arg Cys Pro Gly Met Thr Ile Pro Asp Ser
145   150   155   160

Gln Asn His Leu Pro Ala Val Gly Trp Gly Ser Pro Gln Arg Ala His
                165   170   175

Pro Tyr Ser Gln Ser Arg Asp Glu Gly Ser Cys Gly Pro Arg Arg Trp
            180   185   190

Ala Lys Arg Arg Thr Gly Ser Trp Met Gln Ser Gly Val Ser Gly Ala
            195   200   205

Pro Gly Gln Arg His Arg Ala Tyr Trp Gly Gln Gly Trp Gly Glu Met

```
        210                  215                  220
Gly Leu Ser Pro Arg Asp Leu Gly Arg Ser
225                  230
```

<210> 4126

<211> 103

<212> PRT

<213> Homo sapiens

<400> 4126

```
Met Glu Pro Arg Ser Gly Gly Leu Arg Ser His Lys Ala Tyr Ala Cys
 1               5                  10                  15
Ile Phe Leu Arg Glu Pro Thr Glu Glu Arg Glu Met Ala Lys Thr Arg
                20                  25                  30
Arg Asp Arg Trp Met Thr Thr Ser Ala Gly Gln Lys Thr Thr Leu Ile
          35                  40                  45
Ala Phe Met Arg Met Thr Ala Ser Pro Ser Gln Lys Ala Thr Leu Ile
         50                  55                  60
Ala Ser Met Arg Met Thr Ala Ser Pro Gly Gln Lys Thr Thr Leu Ile
 65                  70                  75                  80
Ala Ser Met Ser Ser Pro Trp Gly Ile His Gly Glu Asp Ile Phe Glu
                85                  90                  95
Gly Glu Ile Pro Asn Ala Ser
               100
```

<210> 4127

<211> 110

<212> PRT

<213> Homo sapiens

<400> 4127

```
Met Arg Pro Ser Met Ile Trp Val Leu Ser Ala Ser Pro Ala Ser Pro
 1               5                  10                  15
Asp Val Pro Gly Gly Ser Ala Leu Val Asn Pro Cys Ser Leu Leu Ala
```

```
                 20                        25                        30
Thr Arg Cys Ser Leu Arg Pro Leu Pro Thr Thr Gln Asn Ala Ile Tyr
             35                        40                        45
Leu Leu Pro Ser Thr Leu Pro Pro Cys Pro Arg Pro Ile Pro Ile Pro
         50                        55                        60
Gln Leu Thr Ser Cys Pro Phe Ile Lys Ile Ala Leu Ala Met Pro Ser
 65                        70                        75                        80
Gln Glu Ile Ser Asn Pro Tyr Gly Leu Leu Gly Ala Pro Leu Leu Glu
                 85                        90                        95
Ala Ala Lys Asp Thr Asp Leu Phe Ser Arg Cys Ala Trp Ile
             100                       105                       110
```

<210> 4128

<211> 104

<212> PRT

<213> Homo sapiens

<400> 4128

```
Met Leu Pro Asn Tyr Met Lys Gln Thr Ile Tyr Gly His Asn Thr Thr
 1                     5                        10                       15
Ile Phe Asn Glu His Leu Tyr Ile Leu Tyr Ala Thr Val Leu Ser Leu
                 20                        25                        30
Cys Leu Pro Cys Ala Lys Ser Thr Val Phe Asn Asp Leu Lys Leu Thr
             35                        40                        45
Phe Ala Asn Asn Ser Lys Tyr Arg Trp Ser Ser Ser Ser Lys Thr Thr
         50                        55                        60
Lys Gly Ser Phe Leu Ser Met Val Ile Phe Ser Pro Phe Lys Leu Ile
 65                        70                        75                        80
Leu Tyr Lys Gln Asp Phe Lys Ser Lys Ser His Phe Phe Arg Cys Arg
                 85                        90                        95
His Pro Cys Gly Trp Glu Arg Ile
             100
```

<210> 4129

<211> 132

<212> PRT

<213> Homo sapiens

<400> 4129

Met Pro Ser Arg Cys Pro Gly Pro His Pro Ser Ala Arg His Pro Pro

1   5   10   15

Ser Gly Leu Pro Gly Leu Leu Gly Ser Pro Val Phe Pro Asp Arg Gln

                20   25   30

Gly Leu Asp Val Pro Ser Gln Pro Ala Pro Gly Pro Thr Cys Arg Ser

            35   40   45

Tyr Pro Asn Ala Leu Arg Ser Pro Ala Leu Pro Leu Cys Phe His Pro

    50   55   60

Pro Ser Phe Leu Met Val Phe Phe Leu Pro His Cys Leu Ser Leu Cys

65   70   75   80

Leu Ser Val Leu Ser Val Pro Ser Pro Pro Val Ser Pro Ser Ala Leu

                85   90   95

Tyr Gly Pro Leu Val Ser Leu Ser Thr Ser Leu Tyr His His Val Ile

                100   105   110

Ser Val Ser Leu Ser Val Ser Ile Ser Pro Cys Leu Cys Leu Leu Cys

            115   120   125

Leu Ile Phe Leu

    130

<210> 4130

<211> 117

<212> PRT

<213> Homo sapiens

<400> 4130

Met Asn Lys Ile Arg Leu Ser Leu Lys Arg Asn Tyr Lys Lys Glu Leu

1   5   10   15

Arg Pro Gly Val Met Ala His Ala Gly Asn Pro Ser Thr Leu Gly Gly

                20   25   30

Gln Gly Ser Trp Ile Met Arg Ser Gly Val Arg Asp Gln Pro Gly Gln

```
              35                    40                    45
His Gly Glu Thr Ser Ser Leu Leu Lys Ile Gln Glu Leu Ala Gly Cys
         50                  55                  60
Gly Gly Met Pro Val Phe Pro Ala Thr Gln Glu Gly Lys Ala Gly Glu
    65                  70                  75                  80
Ser Leu Glu Pro Arg Arg Trp Arg Leu Gln Cys Thr Gln Ile Ala Pro
                   85                  90                  95
Leu His Ser Ser Leu Gly Asp Arg Ala Arg Leu Leu Glu Lys Lys Gly
                  100                 105                 110
Ala Glu Met Lys Phe
                 115
```

<210> 4131

<211> 143

<212> PRT

<213> Homo sapiens

<400> 4131

```
Met Met Pro Gly Met Ala Thr Leu Met Ala Asp Ser Met Cys Asp Asp
    1                   5                  10                  15
Ser Tyr Ser Ser Cys Gly Arg Gln Ser Ile Ser Ser Ser Arg Ser Leu
                 20                  25                  30
Pro Ser Ser Ser Cys Ser Leu Ser His Ala Thr Val Leu Leu Ile Ala
         35                  40                  45
Ile Ser Asp Ala Lys Gly Thr Gly Leu Ser Val Ser Ile Met Gly Val
         50                  55                  60
Glu Leu Arg Glu Arg Ala Gly Cys Leu Pro Asp Ala Pro Arg Gly Arg
    65                  70                  75                  80
His Arg Pro Ser Ala Pro Arg Ala Lys Leu Pro Leu Ser Glu Arg Gly
                  85                  90                  95
Leu Ile Pro Pro Arg Leu Thr Gln Ala Glu Ala Ser Gly Trp Gly Arg
                 100                 105                 110
Arg Asp Arg Ser Lys Ala Gly Gly Ser Leu Cys Thr Gln Leu Gln Pro
                 115                 120                 125
Leu Ala Leu Ser Val Asn Glu Ser Leu Ser Met Lys Leu Pro Arg
```

130   135   140

<210> 4132

<211> 140

<212> PRT

<213> Homo sapiens

<400> 4132

Met Glu Ala Ser Pro Tyr Leu Glu Gly Pro Leu Ser Gly Arg Pro Cys
 1   5   10   15

Trp Leu His Arg Gly Gly Ser Glu Asp Asn Pro Ser Leu Gly Gly Ala
            20   25   30

His His Cys Cys Leu Gly His Ser Gln Glu Cys Tyr Ser Arg Pro Thr
         35   40   45

Ala Gly His Leu Ala Gly Thr Gly Ser Pro Arg Ile Trp Pro Arg Trp
      50   55   60

Gly Arg Val Pro Pro Arg Ser Phe Ser Leu Ser Ser Ala Ser Val Pro
65   70   75   80

Ser Pro His Leu Leu Cys Thr Arg Ile Thr Ala Ser Arg Glu Arg Met
               85   90   95

Ala Leu Arg Leu Gly Phe Cys Phe Gln Pro Ser Ser Glu Arg Gly Ser
            100   105   110

Thr Tyr Arg Lys Gln Tyr Ile Ser His Gln Ser Leu Arg Asp Pro Gln
            115   120   125

Ala Gln Leu Thr Pro Thr Pro Gly Ala Pro Ala Phe
      130   135   140

<210> 4133

<211> 208

<212> PRT

<213> Homo sapiens

<400> 4133

Met Gly Ser Cys Ser Gly Arg Cys Ala Leu Val Val Leu Cys Ala Phe
1   5   10   15

Gln Leu Val Ala Ala Leu Glu Arg Gln Val Phe Asp Phe Leu Gly Tyr
          20   25   30

Gln Trp Ala Pro Ile Leu Ala Asn Phe Val His Ile Ile Ile Val Ile
          35   40   45

Leu Gly Leu Phe Gly Thr Ile Gln Tyr Arg Leu Arg Tyr Val Met Val
          50   55   60

Tyr Thr Leu Trp Ala Ala Val Trp Val Thr Trp Asn Val Phe Ile Ile
65   70   75   80

Cys Phe Tyr Leu Glu Val Gly Gly Leu Leu Gln Asp Ser Glu Leu Leu
                   85   90   95

Thr Phe Ser Leu Ser Arg His Arg Ser Trp Trp Arg Glu Arg Trp Pro
              100   105   110

Gly Cys Leu His Glu Glu Val Pro Ala Val Gly Leu Gly Ala Pro His
              115   120   125

Gly Gln Ala Leu Val Ser Gly Ala Gly Cys Ala Leu Glu Pro Ser Tyr
          130   135   140

Val Glu Ala Leu His Ser Gly Leu Gln Ile Leu Ile Ala Leu Leu Gly
145   150   155   160

Phe Val Cys Gly Cys Gln Val Val Ser Val Phe Thr Glu Glu Glu Asp
              165   170   175

Ser Phe Asp Phe Ile Gly Gly Phe Asp Pro Phe Pro Leu Tyr His Val
              180   185   190

Asn Glu Lys Pro Ser Ser Leu Leu Ser Lys Gln Val Tyr Leu Pro Ala
          195   200   205

<210> 4134

<211> 159

<212> PRT

<213> Homo sapiens

<400> 4134

Met Cys Val Arg Arg Ser Leu Val Gly Leu Thr Phe Cys Thr Cys Tyr
1   5   10   15

Leu Ala Ser Tyr Leu Thr Asn Lys Tyr Val Leu Ser Val Leu Lys Phe
            20   25   30

Thr Tyr Pro Thr Leu Phe Gln Gly Trp Gln Thr Leu Ile Gly Gly Leu
            35   40   45

Leu Leu His Val Ser Trp Lys Leu Gly Trp Val Glu Ile Asn Ser Ser
       50   55   60

Ser Arg Ser His Val Leu Val Trp Leu Pro Ala Ser Val Leu Phe Val
65   70   75   80

Gly Ile Ile Tyr Ala Gly Ser Arg Ala Leu Ser Arg Leu Ala Ile Pro
                85   90   95

Val Phe Leu Thr Leu His Asn Val Ala Glu Val Ile Ile Cys Gly Tyr
            100   105   110

Gln Lys Cys Phe Gln Lys Glu Lys Thr Ser Pro Ala Lys Ile Cys Ser
            115   120   125

Ala Leu Phe Leu Leu Ala Ala Ala Gly Cys Leu Pro Phe Asn Asp Ser
       130   135   140

Gln Gly Leu Ile Lys Phe Tyr Arg Ser Pro Arg Asn Pro Val His
145   150   155

<210> 4135

<211> 942

<212> PRT

<213> Homo sapiens

<400> 4135

Met Glu Arg Leu Leu Arg Arg Ile Asn Arg Thr Val Ile Gly Met Asn
  1   5   10   15

Arg Gln Ser Pro His Ile Gly Ser Phe Val Ala Cys Met Ile Ala Leu
            20   25   30

Leu Gln Gln Met Asp Asp Ser His Tyr Ser His Tyr Ile Ser Thr Phe
            35   40   45

Lys Thr Arg Gln Asp Ile Ile Asp Phe Leu Leu Glu Thr Phe Ile Met
       50   55   60

Phe Lys Asp Leu Ile Gly Lys Asn Val Tyr Ala Lys Asp Trp Met Val

```
        65                    70                    75                    80
Met Asn Met Thr Gln Asn Arg Val Phe Leu Arg Ala Ile Asn Gln Phe
                       85                    90                    95
Ala Glu Val Leu Thr Arg Phe Phe Met Asp Gln Ala Ser Phe Glu Leu
                  100                   105                   110
Gln Leu Trp Asn Asn Tyr Phe His Leu Ala Val Ala Phe Leu Thr His
             115                   120                   125
Glu Ser Leu Gln Leu Glu Thr Phe Ser Gln Ala Lys Arg Asn Lys Ile
         130                   135                   140
Val Lys Lys Tyr Gly Asp Met Arg Lys Glu Ile Gly Phe Arg Ile Arg
145                   150                   155                   160
Asp Met Trp Tyr Asn Leu Gly Pro His Lys Ile Lys Phe Ile Pro Ser
                  165                   170                   175
Met Val Gly Pro Ile Leu Glu Val Thr Leu Thr Pro Glu Val Glu Leu
             180                   185                   190
Arg Lys Ala Thr Ile Pro Ile Phe Phe Asp Met Met Gln Cys Glu Phe
             195                   200                   205
Asn Phe Ser Gly Asn Gly Asn Phe His Met Phe Glu Asn Glu Leu Ile
         210                   215                   220
Thr Lys Leu Asp Gln Glu Val Glu Glu Gly Arg Gly Asp Glu Gln Tyr
225                   230                   235                   240
Lys Val Leu Leu Glu Lys Leu Leu Leu Glu His Cys Arg Lys His Lys
                  245                   250                   255
Tyr Leu Ser Ser Ser Gly Glu Val Phe Ala Leu Leu Val Ser Ser Leu
             260                   265                   270
Leu Glu Asn Leu Leu Asp Tyr Arg Thr Ile Ile Met Gln Asp Glu Ser
             275                   280                   285
Lys Glu Asn Arg Met Ser Cys Thr Val Asn Val Leu Asn Phe Tyr Lys
         290                   295                   300
Glu Lys Lys Arg Glu Asp Ile Tyr Ile Arg Tyr Leu Tyr Lys Leu Arg
305                   310                   315                   320
Asp Leu His Arg Asp Cys Glu Asn Tyr Thr Glu Ala Ala Tyr Thr Leu
                  325                   330                   335
Leu Leu His Ala Glu Leu Leu Gln Trp Ser Asp Lys Pro Cys Val Pro
             340                   345                   350
His Leu Leu Gln Arg Asp Ser Tyr Tyr Val Tyr Thr Gln Gln Glu Leu
```

```
        355                  360                  365
Lys Glu Lys Leu Tyr Gln Glu Ile Ile Ser Tyr Phe Asp Lys Gly Lys
    370                  375                  380
Met Trp Glu Lys Ala Ile Lys Leu Ser Lys Glu Leu Ala Glu Thr Tyr
385                  390                  395                  400
Glu Ser Lys Val Phe Asp Tyr Glu Gly Leu Gly Asn Leu Leu Lys Lys
                405                  410                  415
Arg Ala Ser Phe Tyr Glu Asn Ile Ile Lys Ala Met Arg Pro Gln Pro
                420                  425                  430
Glu Tyr Phe Ala Val Gly Tyr Tyr Gly Gln Gly Phe Pro Ser Phe Leu
                435                  440                  445
Arg Asn Lys Ile Phe Ile Tyr Arg Gly Lys Glu Tyr Glu Arg Arg Glu
                450                  455                  460
Asp Phe Ser Leu Arg Leu Leu Thr Gln Phe Pro Asn Ala Glu Lys Met
465                  470                  475                  480
Thr Ser Thr Thr Pro Pro Gly Glu Asp Ile Lys Ser Ser Pro Lys Gln
                485                  490                  495
Tyr Met Gln Cys Phe Thr Val Lys Pro Val Met Ser Leu Pro Pro Ser
                500                  505                  510
Tyr Lys Asp Lys Pro Val Pro Glu Gln Ile Leu Asn Tyr Tyr Arg Ala
                515                  520                  525
Asn Glu Val Gln Gln Phe Arg Tyr Ser Arg Pro Phe Arg Lys Gly Glu
                530                  535                  540
Lys Asp Pro Asp Asn Glu Phe Ala Thr Met Trp Ile Glu Arg Thr Thr
545                  550                  555                  560
Tyr Thr Thr Ala Tyr Thr Phe Pro Gly Ile Leu Lys Trp Phe Glu Val
                565                  570                  575
Lys Gln Ile Ser Thr Glu Glu Ile Ser Pro Leu Glu Asn Ala Ile Glu
                580                  585                  590
Thr Met Glu Leu Thr Asn Glu Arg Ile Ser Asn Cys Val Gln Gln His
                595                  600                  605
Ala Trp Asp Arg Ser Leu Ser Val His Pro Leu Ser Met Leu Leu Ser
                610                  615                  620
Gly Ile Val Asp Pro Ala Val Met Gly Gly Phe Ser Asn Tyr Glu Lys
625                  630                  635                  640
Ala Phe Phe Thr Glu Lys Tyr Leu Gln Glu His Pro Glu Asp Gln Glu
```

```
                    645                    650                    655
Lys Val Glu Leu Leu Lys Arg Leu Ile Ala Leu Gln Met Pro Leu Leu
             660                    665                    670
Thr Glu Gly Ile Arg Ile His Gly Glu Lys Leu Thr Glu Gln Leu Lys
             675                    680                    685
Pro Leu His Glu Arg Leu Ser Ser Cys Phe Arg Glu Leu Lys Glu Lys
         690                    695                    700
Val Glu Lys His Tyr Gly Val Ile Thr Leu Pro Pro Asn Leu Thr Glu
705                    710                    715                    720
Arg Lys Gln Ser Arg Thr Gly Ser Ile Val Leu Pro Tyr Ile Met Ser
                  725                    730                    735
Ser Thr Leu Arg Arg Leu Ser Ile Thr Ser Val Thr Ser Ser Val Val
             740                    745                    750
Ser Thr Ser Ser Asn Ser Ser Asp Asn Ala Pro Ser Arg Pro Gly Ser
             755                    760                    765
Asp Gly Ser Ile Leu Glu Pro Leu Leu Glu Arg Arg Ala Ser Ser Gly
         770                    775                    780
Ala Arg Val Glu Asp Leu Ser Leu Arg Glu Glu Asn Ser Glu Asn Arg
785                    790                    795                    800
Ile Ser Lys Phe Lys Arg Lys Asp Trp Ser Leu Ser Lys Ser Gln Val
                  805                    810                    815
Ile Ala Glu Lys Ala Pro Glu Pro Asp Leu Met Ser Pro Thr Arg Lys
             820                    825                    830
Ala Gln Arg Pro Lys Ser Leu Gln Leu Met Asp Asn Arg Leu Ser Pro
             835                    840                    845
Phe His Gly Ser Ser Pro Pro Gln Ser Thr Pro Leu Ser Pro Pro Pro
         850                    855                    860
Leu Thr Pro Lys Ala Thr Arg Thr Leu Ser Ser Pro Ser Leu Gln Thr
865                    870                    875                    880
Asp Gly Ile Ala Ala Thr Pro Val Pro Pro Pro Pro Pro Lys Ser
                  885                    890                    895
Lys Pro Tyr Glu Gly Ser Gln Arg Ser Ser Thr Glu Leu Ala Pro Pro
             900                    905                    910
Leu Pro Val Arg Arg Glu Ala Lys Ala Pro Pro Pro Pro Pro Lys
             915                    920                    925
Ala Arg Lys Ser Gly Ile Pro Thr Ser Glu Pro Gly Ser Gln
```

930   935   940

<210> 4136

<211> 144

<212> PRT

<213> Homo sapiens

<400> 4136

Met Ala His Leu Arg Asp His Pro Phe Ser Asn Thr Arg Leu Pro Lys
 1   5   10   15

Pro Trp His Arg Asp Gly Cys Leu Gly Trp Pro Arg Arg Asp Ser Arg
                 20   25   30

Ser Val Leu Cys Gly Asp Leu Leu Ser Ala Gln Lys Leu Val Leu Thr
             35   40   45

Leu Pro Leu Thr Gly Val Trp Cys Phe Trp Ser Gly Leu Phe Leu Gln
         50   55   60

Gly Cys Pro Ser Val Ser Val Pro Met Gly Val Cys Pro Ala Cys Ser
65   70   75   80

Tyr Arg Glu Gln Asp Cys Trp Ala Pro Gly Met Arg Ala Arg Gly Trp
                 85   90   95

Pro Asn Thr Glu Trp Leu Pro Ala Val Ile Leu Ser Val Leu Phe Pro
             100   105   110

Pro Gln Ser Ser Trp Gln Glu Ser Val Leu Leu Ala Ala Phe Phe Val
         115   120   125

Arg Ile Tyr Trp Asp Leu Phe Lys Val Pro Trp Gly Pro Arg Arg Leu
         130   135   140

<210> 4137

<211> 112

<212> PRT

<213> Homo sapiens

<400> 4137

Met Leu Phe Phe Phe Phe Phe Phe Phe Phe Glu Met Glu Ser Cys Phe

1				5					10					15	

Val Ala Gln Ala Glu Val Gln Trp His Asp Leu Gly Ser Leu Leu Pro

       20   25   30

Leu Pro Pro Gly Phe Lys Gln Phe Phe Cys Leu Ser Leu Pro Ser Ser

      35   40   45

Trp Asp Cys Arg Cys Ala Pro Thr Cys Thr Thr Val Gln Ile Pro Gly

      50   55   60

Cys Leu Phe Ser Gly Asp Gly Val Ser Pro Cys Trp Pro Gly Trp Ser

65   70   75   80

Arg Thr Pro Asp Leu Arg Trp Ser Thr Cys Phe Ser Leu Pro Gly Cys

          85   90   95

Trp Asn Cys Arg Cys Glu Pro Pro Cys Gln Thr Asp Ala Phe Tyr Val

      100   105   110

<210> 4138

<211> 531

<212> PRT

<213> Homo sapiens

<400> 4138

Met Leu Lys Leu Ile Pro Pro His Ala Arg Glu Ala Gly Thr Arg Gly

 1   5   10   15

Gly Thr Asp Thr Ala Gly Glu Pro Thr Pro Glu Val Arg Pro Gly Asp

      20   25   30

Val His Ser His Ile Pro Lys Ala His Gly Met Arg Ser Ala Trp Val

      35   40   45

Thr Leu Gly Leu Cys Pro Pro Arg Gln Glu Pro Ala Leu Cys Thr Leu

      50   55   60

Cys Ala Cys Pro Ser Gly Arg Pro Ser Met Arg Gly Pro Ala Val Leu

65   70   75   80

Leu Thr Val Ala Leu Ala Thr Leu Leu Ala Pro Gly Ala Gly Ala Pro

          85   90   95

Val Gln Ser Gln Gly Ser Gln Asn Lys Leu Leu Leu Val Ser Phe Asp

      100   105   110

Gly Phe Arg Trp Asn Tyr Asp Gln Asp Val Asp Thr Pro Asn Leu Asp

```
                115                    120                    125
Ala Met Ala Arg Asp Gly Val Lys Ala Arg Tyr Met Thr Pro Ala Phe
        130                    135                    140
Val Thr Met Thr Ser Pro Cys His Phe Thr Leu Val Thr Gly Lys Tyr
145                    150                    155                    160
Ile Glu Asn His Gly Val Val His Asn Met Tyr Tyr Asn Thr Thr Ser
                165                    170                    175
Lys Val Lys Leu Pro Tyr His Ala Thr Leu Gly Ile Gln Arg Trp Trp
            180                    185                    190
Asp Asn Gly Ser Val Pro Ile Trp Ile Thr Ala Gln Arg Gln Gly Leu
            195                    200                    205
Arg Ala Gly Ser Phe Phe Tyr Pro Gly Gly Asn Val Thr Tyr Gln Gly
        210                    215                    220
Val Ala Val Thr Arg Ser Arg Lys Glu Gly Ile Ala His Asn Tyr Lys
225                    230                    235                    240
Asn Glu Thr Glu Trp Arg Ala Asn Ile Asp Thr Val Met Ala Trp Phe
                245                    250                    255
Thr Glu Glu Asp Leu Asp Leu Val Thr Leu Tyr Phe Gly Glu Pro Asp
            260                    265                    270
Ser Thr Gly His Arg Tyr Gly Pro Glu Ser Pro Glu Arg Arg Glu Met
        275                    280                    285
Val Arg Gln Val Asp Arg Thr Val Gly Tyr Leu Arg Glu Ser Ile Ala
        290                    295                    300
Arg Asn His Leu Thr Asp Arg Leu Asn Leu Ile Ile Thr Ser Asp His
305                    310                    315                    320
Gly Met Thr Thr Val Asp Lys Arg Ala Gly Asp Leu Val Glu Phe His
                325                    330                    335
Lys Phe Pro Asn Phe Thr Phe Arg Asp Ile Glu Phe Glu Leu Leu Asp
            340                    345                    350
Tyr Gly Pro Asn Gly Met Leu Leu Pro Lys Glu Gly Arg Leu Glu Lys
        355                    360                    365
Val Tyr Asp Ala Leu Lys Asp Ala His Pro Lys Leu His Val Tyr Lys
        370                    375                    380
Lys Glu Ala Phe Pro Glu Ala Phe His Tyr Ala Asn Asn Pro Arg Val
385                    390                    395                    400
Thr Pro Leu Leu Met Tyr Ser Asp Leu Gly Tyr Val Ile His Gly Arg
```

```
                    405                    410                    415
Ile Asn Val Gln Phe Asn Asn Gly Glu His Gly Phe Asp Asn Lys Asp
            420                    425                    430
Met Asp Met Lys Thr Ile Phe Arg Ala Val Gly Pro Ser Phe Arg Ala
            435                    440                    445
Gly Leu Glu Val Glu Pro Phe Glu Ser Val His Val Asn Glu Leu Met
        450                    455                    460
Cys Arg Leu Leu Gly Ile Val Pro Glu Ala Asn Asp Gly His Leu Ala
465                    470                    475                    480
Thr Leu Leu Pro Met Leu His Thr Glu Ser Ala Leu Pro Pro Asp Gly
            485                    490                    495
Arg Pro Thr Leu Leu Pro Lys Gly Arg Ser Ala Leu Pro Pro Ser Ser
            500                    505                    510
Arg Pro Leu Leu Val Met Gly Leu Leu Gly Thr Val Ile Leu Leu Ser
        515                    520                    525
Glu Val Ala
        530
```

<210> 4139

<211> 270

<212> PRT

<213> Homo sapiens

<400> 4139

```
Met Thr Thr Leu Ser Asn Arg Asn Lys Tyr Leu Ser Cys Leu Val Trp
1                    5                    10                    15
Leu Thr Met Asp Arg Thr Phe Ser Ser Pro Ser Ile Phe Gly Leu Pro
            20                    25                    30
Asn Ser Ser Ser Phe Thr Cys Trp Glu Gly Glu Gly Pro Ser Ala Gly
        35                    40                    45
Ala Gly Ala Ala Pro Val Leu Leu Thr Ala Arg Ala Gly Gln Thr Val
        50                    55                    60
Val His Pro Arg Glu Leu Pro Thr Gly Ser Arg Gly Gly Thr Lys Gly
65                    70                    75                    80
Asn Ser Pro Cys Gly Ser Gln Leu Val Leu Arg Met Asp Glu Gly Gly
```

```
                    85                      90                      95
Cys Arg Arg Pro Gly Arg Asp Trp Ala Trp Gln Leu Leu Ser Leu Ser
                100                     105                 110
Trp Pro Ala Leu Pro Arg Gly Ser Leu Gln Leu Trp Gly Gln Arg Ala
            115                 120                 125
Ile Asp Gly Ala Gly Cys Val His Arg Gly Arg Arg Cys Val Glu Pro
        130                 135                 140
Gln Ala Gly Pro Gly Arg Lys Ser Gln Lys Pro Lys Pro His Val Gln
145                 150                 155                 160
Glu Arg Thr Asn Ser Ala Tyr Leu Leu Gln Gly Gly Trp Gly Arg Gly
                165                 170                 175
Pro Ala Lys Gly Glu Ala Ser Thr Gln Thr Pro Val Trp Phe Ala Glu
            180                 185                 190
Val His Phe Arg Cys Leu Ser Gly Phe Val Ser Val Thr Leu Leu Ile
            195                 200                 205
Gln Arg Glu Leu Leu Leu Thr Cys Ser Leu Arg Gly Phe Gln Ser Val
        210                 215                 220
His Thr Asp Arg Lys Arg Trp Arg Lys Met Leu Gln Asp Thr Asn Arg
225                 230                 235                 240
Ala Leu Pro Gly Arg Cys Ser Arg His Arg Leu Ser Val Ser Phe Gln
            245                 250                 255
Gly Leu Ser Pro Arg Gly Cys Lys Asp Ser Phe Gly Val Thr
            260                 265                 270
```

<210> 4140

<211> 426

<212> PRT

<213> Homo sapiens

<400> 4140

```
Met Gly Glu Pro Gly Gln Ser Pro Ser Pro Arg Ser Ser His Gly Ser
  1                 5                  10                  15
Pro Pro Thr Leu Ser Thr Leu Thr Leu Leu Leu Leu Leu Cys Gly His
                20                  25                  30
Ala His Ser Gln Cys Lys Ile Leu Arg Cys Asn Ala Glu Tyr Val Ser
```

```
                35                      40                      45
Ser Thr Leu Ser Leu Arg Gly Gly Gly Ser Ser Gly Ala Leu Arg Gly
        50                      55                      60
Gly Gly Gly Gly Gly Arg Gly Gly Gly Val Gly Ser Gly Gly Leu Cys
 65                      70                      75                      80
Arg Ala Leu Arg Ser Tyr Ala Leu Cys Thr Arg Arg Thr Ala Arg Thr
                85                      90                      95
Cys Arg Gly Asp Leu Ala Phe His Ser Ala Val His Gly Ile Glu Asp
               100                     105                     110
Leu Met Ile Gln His Asn Cys Ser Arg Gln Gly Pro Thr Ala Pro Pro
               115                     120                     125
Pro Pro Arg Gly Pro Ala Leu Pro Gly Ala Gly Ser Gly Leu Pro Ala
       130                     135                     140
Pro Asp Pro Cys Asp Tyr Glu Gly Arg Phe Ser Arg Leu His Gly Arg
145                     150                     155                     160
Pro Pro Gly Phe Leu His Cys Ala Ser Phe Gly Asp Pro His Val Arg
               165                     170                     175
Ser Phe His His His Phe His Thr Cys Arg Val Gln Gly Ala Trp Pro
               180                     185                     190
Leu Leu Asp Asn Asp Phe Leu Phe Val Gln Ala Thr Ser Ser Pro Met
               195                     200                     205
Ala Leu Gly Ala Asn Ala Thr Ala Thr Arg Lys Leu Thr Ile Ile Phe
       210                     215                     220
Lys Asn Met Gln Glu Cys Ile Asp Gln Lys Val Tyr Gln Ala Glu Val
225                     230                     235                     240
Asp Asn Leu Pro Val Ala Phe Glu Asp Gly Ser Ile Asn Gly Gly Asp
                       245                     250                     255
Arg Pro Gly Gly Ser Ser Leu Ser Ile Gln Thr Ala Asn Pro Gly Asn
               260                     265                     270
His Val Glu Ile Gln Ala Ala Tyr Ile Gly Thr Thr Ile Ile Ile Arg
               275                     280                     285
Gln Thr Ala Gly Gln Leu Ser Phe Ser Ile Lys Val Ala Glu Asp Val
       290                     295                     300
Ala Met Ala Phe Ser Ala Glu Gln Asp Leu Gln Leu Cys Val Gly Gly
305                     310                     315                     320
```

Cys Pro Pro Ser Gln Arg Leu Ser Arg Ser Glu Arg Asn Arg Arg Gly
             325   330   335

Ala Ile Thr Ile Asp Thr Ala Arg Arg Leu Cys Lys Glu Gly Leu Pro
            340   345   350

Val Glu Asp Ala Tyr Phe His Ser Cys Val Phe Asp Val Leu Ile Ser
         355   360   365

Gly Asp Pro Asn Phe Thr Val Ala Ala Gln Ala Ala Leu Glu Asp Ala
      370   375   380

Arg Ala Phe Leu Pro Asp Leu Glu Lys Leu His Leu Phe Pro Ser Asp
385   390   395   400

Ala Gly Val Pro Leu Ser Ser Ala Thr Leu Leu Ala Pro Leu Leu Ser
            405   410   415

Gly Leu Phe Val Leu Trp Leu Cys Ile Gln
            420   425

<210> 4141

<211> 128

<212> PRT

<213> Homo sapiens

<400> 4141

Met Tyr Cys Gln Asp Ser Asn Ile Cys Ala Val Phe Ala Val Gln Gly
  1   5   10   15

Gly Lys Val Gly Arg Lys His Gly Ile Lys Arg Gly Arg Arg Pro Ser
            20   25   30

Ile Arg Ser Pro Ala Gln Arg Ala Arg Gly Pro Trp Ile His Glu Ser
         35   40   45

Lys His Pro Ala Phe Ala Lys Gln Gln Ile Asn Leu Glu Met Pro Asn
     50   55   60

Ser Arg Ala Thr Thr Glu Leu Ala Trp Val Cys Ser Ser Thr Ser Arg
65   70   75   80

Lys Lys Lys Trp Ala Gly Ser Leu Thr Leu Ser Thr Ala Pro Leu Ser
               85   90   95

Pro Pro Pro Ser Leu Val His Cys Glu Asp Cys Ser Cys Leu Pro Gly
            100   105   110

Cys His Ser Gly Asp Leu Tyr Asn Leu Ala Pro Ala Glu Arg Thr Cys
        115   120   125

<210> 4142

<211> 386

<212> PRT

<213> Homo sapiens

<400> 4142

Met Asn Gly Thr Ile Tyr Ser Pro Gly Tyr Pro Asp Glu Tyr Pro Asn
 1   5   10   15
Phe Gln Asp Cys Phe Trp Leu Val Arg Val Pro Pro Gly Asn Gly Ile
            20   25   30
Tyr Ile Asn Phe Thr Val Leu Gln Thr Glu Pro Ile Tyr Asp Phe Ile
        35   40   45
Thr Val Trp Asp Gly Pro Asp Gln Asn Ser Pro Gln Ile Gly Gln Phe
    50   55   60
Ser Gly Asn Thr Ala Leu Glu Ser Val Tyr Ser Thr Ser Asn Gln Ile
 65   70   75   80
Leu Ile Lys Phe His Ser Asp Phe Thr Thr Ser Gly Phe Phe Val Leu
                85   90   95
Ser Tyr His Ala Tyr Gln Leu Arg Val Cys Gln Pro Pro Pro Pro Val
            100   105   110
Pro Asn Ala Glu Ile Leu Thr Glu Asp Asp Glu Phe Glu Ile Gly Asp
            115   120   125
Ile Ile Arg Tyr Gln Cys Leu Pro Gly Phe Thr Leu Val Gly Asn Ala
        130   135   140
Ile Leu Thr Cys Arg Leu Gly Glu Arg Leu Gln Met Asp Gly Ala Pro
145   150   155   160
Pro Val Cys Gln Val Leu Cys Pro Ala Asn Glu Leu Arg Leu Asp Ser
                165   170   175
Thr Gly Val Ile Leu Ser Pro Gly Tyr Pro Asp Ser Tyr Pro Asn Leu
            180   185   190
Gln Met Cys Ala Trp Ser Ile Ser Val Glu Lys Gly Tyr Asn Ile Thr
        195   200   205

```
Met Phe Val Glu Phe Phe Gln Thr Glu Lys Glu Phe Asp Val Leu Gln
    210                 215                 220
Val Tyr Asp Gly Pro Asn Ile Gln Ser Pro Val Leu Ile Ser Leu Ser
225                 230                 235                 240
Gly Asp Tyr Ser Ser Ala Phe Asn Ile Thr Ser Asn Gly His Glu Val
                245                 250                 255
Phe Leu Gln Trp Ser Ala Asp His Gly Asn Asn Lys Lys Gly Phe Arg
                260                 265                 270
Ile Arg Tyr Ile Ala Phe Tyr Cys Ser Thr Pro Glu Ser Pro Pro His
            275                 280                 285
Gly Tyr Ile Ile Ser Gln Thr Gly Gly Gln Leu Asn Ser Val Val Arg
        290                 295                 300
Trp Ala Cys Asp Arg Gly Phe Arg Leu Val Gly Lys Ser Ser Ala Val
305                 310                 315                 320
Cys Arg Lys Ser Ser Tyr Gly Tyr His Ala Trp Asp Ala Pro Val Pro
                325                 330                 335
Ala Cys Gln Gly Glu Val Tyr Tyr Ala Lys Met Asn Lys Asn Met Asn
                340                 345                 350
Val Arg Leu Ala Pro Phe Asn Val Phe Ile Trp Ile Thr Asn Phe Ser
            355                 360                 365
Glu Asn Gly Asn Ile Arg Lys His Ile Val Asn Ser Phe His Lys Asn
        370                 375                 380
Lys Ala
385
```

```
<210> 4143
<211> 164
<212> PRT
<213> Homo sapiens

<400> 4143
Met Leu Val Glu Val Ala Leu Cys Thr Trp Tyr Leu Val Ala Phe Pro
    1                 5                 10                15
Pro Glu Val Val Thr Asp Trp His Met Leu Pro Thr Glu Ala Leu Val
                20                 25                 30
```

His Cys Arg Thr Arg Ser Trp Val Ser Phe Gly Leu Ala His Ala Thr
       35   40   45

Asn Ala Thr Leu Ala Phe Leu Cys Phe Leu Gly Thr Phe Leu Val Arg
       50   55   60

Ser Gln Pro Gly Arg Tyr Asn Arg Ala Arg Gly Leu Thr Phe Ala Met
65   70   75   80

Leu Ala Tyr Phe Ile Thr Trp Val Ser Phe Val Pro Leu Leu Ala Asn
             85   90   95

Val Gln Val Val Leu Arg Pro Ala Val Gln Met Gly Ala Leu Leu Leu
          100   105   110

Cys Val Leu Gly Ile Leu Ala Ala Phe His Leu Pro Arg Cys Tyr Leu
       115   120   125

Leu Met Arg Gln Pro Gly Leu Asn Thr Pro Glu Phe Phe Leu Gly Gly
       130   135   140

Gly Pro Gly Asp Ala Gln Gly Gln Asn Asp Gly Asn Thr Gly Asn Gln
145   150   155   160

Gly Lys His Glu

<210> 4144

<211> 136

<212> PRT

<213> Homo sapiens

<400> 4144

Met Lys Glu Arg Asp Trp Lys Ser Ser Ser His Asn Thr Val Asn Glu
 1   5   10   15

Glu Leu Pro His Asn Cys Ile Glu Gln Pro Gln Gln Asn Asp Glu Ser
          20   25   30

Ser Ser Lys Val Arg Thr Ser Ser Asp Met Asn Arg Arg Lys Ser Ile
       35   40   45

Lys Asp His Leu Lys Asn Ala Met Thr Gly Asn Ala Lys Ala Gln Thr
       50   55   60

Pro Ile Phe Ser Arg Ser Lys Gln Leu Lys Asp Thr Leu Leu Ser Glu
65   70   75   80

Glu Ile Asn Val Ala Lys Lys Thr Ile Glu Ser Ser Ser Asn Asp Leu
                85   90   95
Gly Pro Phe Tyr Ser Leu Pro Ser Lys Val Arg Asp Leu Tyr Ala Gln
                100   105   110
Phe Lys Gly Ile Glu Lys Leu Tyr Gly Asn Ala Phe Cys Trp Asn Lys
                115   120   125
Lys Ile Phe Phe Leu Ser Leu Pro
        130   135

<210> 4145
<211> 118
<212> PRT
<213> Homo sapiens

<400> 4145
Met Phe Val Leu Glu Phe Val Glu Pro Trp His Val Asp His Ser Ser
    1   5   10   15
Leu Gly Ser Ala Asp Ser Gly Leu Gln Ser Leu Ala Ala Val Thr Ala
                20   25   30
Ala Lys Ala Arg Leu Tyr Ser Arg Arg Ser Leu Leu Ser Leu Ser Trp
            35   40   45
Thr Leu Pro Leu Ser Ser Arg Val Trp Ala Gly Arg Lys Glu Pro Leu
        50   55   60
Arg Lys Leu Asp Ser Leu Trp Thr Leu Pro Leu Glu Ile Ala Val Val
65   70   75   80
Arg Val Leu Ser Gly Trp Phe Leu Ser Leu Ser Arg Tyr Gln Ala Leu
                85   90   95
His Trp Leu His Arg Pro Ile Gln Ser Val Val Gln Arg Ile Lys Pro
                100   105   110
Ser Lys Thr Thr Gln Val
        115

<210> 4146
<211> 404

<212> PRT

<213> Homo sapiens

<400> 4146

```
Met Ile Thr Glu Ala Leu Ala Gln Gly Gly Met His Ile Arg Ala Arg
1               5                   10                  15

Phe Pro Pro Thr Thr Ala Val Ser Ala Ile Pro Ser Ser Ser Ile Pro
                20                  25                  30

Leu Gly Arg Gln Pro Met Ala Gln Val Ser Gln Ser Ser Leu Pro Met
            35                  40                  45

Leu Ser Ser Pro Ser Pro Gly Gln Gln Val Gln Thr Pro Gln Ser Met
            50                  55                  60

Pro Pro Pro Pro Gln Pro Ser Pro Gln Pro Gly Gln Pro Ser Ser Gln
65                  70                  75                  80

Pro Asn Ser Asn Val Ser Ser Gly Pro Ala Pro Ser Pro Ser Ser Phe
                85                  90                  95

Leu Pro Ser Pro Ser Pro Gln Pro Ser Gln Ser Pro Val Thr Ala Arg
                100                 105                 110

Thr Pro Gln Asn Phe Ser Val Pro Ser Pro Gly Pro Leu Asn Thr Pro
            115                 120                 125

Val Asn Pro Ser Ser Val Met Ser Pro Ala Gly Ser Ser Gln Ala Glu
            130                 135                 140

Glu Gln Gln Tyr Leu Asp Lys Leu Lys Gln Leu Ser Lys Tyr Ile Glu
145                 150                 155                 160

Pro Leu Arg Arg Met Ile Asn Lys Ile Asp Lys Asn Glu Asp Arg Lys
                165                 170                 175

Lys Asp Leu Ser Lys Met Lys Ser Leu Leu Asp Ile Leu Thr Asp Pro
                180                 185                 190

Ser Lys Arg Cys Pro Leu Lys Thr Leu Gln Lys Cys Glu Ile Ala Leu
                195                 200                 205

Glu Lys Leu Lys Asn Asp Met Ala Val Pro Thr Pro Pro Pro Pro Pro
            210                 215                 220

Val Pro Pro Thr Lys Gln Gln Tyr Leu Cys Gln Pro Leu Leu Asp Ala
225                 230                 235                 240

Val Leu Ala Asn Ile Arg Ser Pro Val Phe Asn His Ser Leu Tyr Arg
                245                 250                 255
```

Thr Phe Val Pro Ala Met Thr Ala Ile His Gly Pro Pro Ile Thr Ala
          260   265   270

Pro Val Val Cys Thr Arg Lys Arg Arg Leu Glu Asp Asp Glu Arg Gln
          275   280   285

Ser Ile Pro Ser Val Leu Gln Gly Glu Val Ala Arg Leu Asp Pro Lys
        290   295   300

Phe Leu Val Asn Leu Asp Pro Ser His Cys Ser Asn Asn Gly Thr Val
305   310   315   320

His Leu Ile Cys Lys Leu Asp Asp Lys Asp Leu Pro Ser Val Pro Pro
          325   330   335

Leu Glu Leu Ser Val Pro Ala Asp Tyr Pro Ala Gln Ser Pro Leu Trp
          340   345   350

Ile Asp Arg Gln Trp Gln Tyr Asp Ala Asn Pro Phe Leu Gln Ser Val
          355   360   365

His Arg Cys Met Thr Ser Arg Leu Leu Gln Leu Pro Asp Lys His Ser
          370   375   380

Val Thr Ala Leu Leu Asn Thr Trp Ala Gln Ser Val His Gln Ala Cys
385   390   395   400

Leu Thr Ala Ala

<210> 4147

<211> 114

<212> PRT

<213> Homo sapiens

<400> 4147

Met Arg Glu Ile Cys Ile Lys Asn Thr Lys Arg Leu Lys Thr Gly Thr
1   5   10   15

Glu Cys Ser Arg Thr Gly Ser Gln Gly Leu Arg Asp Pro Gly Pro Ser
          20   25   30

Ser Ala Arg Pro Trp Trp Gly Arg Ala Val Gly Arg Arg Glu Ala Gly
          35   40   45

Phe Pro Arg Val His Ala Arg Cys Pro Ser Ala Leu Ala Ser Leu Pro
          50   55   60

Pro Cys Val Ala Cys Ser Pro Phe Ser Leu Pro Asp Pro Gly Cys Phe
65   70   75   80

Asp Asn Leu Gln Ala Leu Arg Val Asn Ala Leu Leu Leu Ser Phe Ile
                85   90   95

Pro Gln Arg Cys Thr Val Leu Gly Thr Gly Arg Ser Trp Ala Cys Lys
                100   105   110

Glu Glu

<210> 4148
<211> 112
<212> PRT
<213> Homo sapiens

<400> 4148
Met Gln Tyr Tyr Gly Pro Ala Thr Trp Ala Asp Gly Ser Trp Arg Tyr
 1   5   10   15

Arg Thr Pro Ile Tyr Met Leu Asn His Ile Ile Trp Leu Gln Ala Val
                20   25   30

Leu Glu Ile Ile Thr Asn Asp Thr Ala Arg Ala Leu Asn Leu Leu Ala
                35   40   45

Arg Lys Ser Thr Glu Met Arg Asn Ala Val Tyr Gln Asn Arg Leu Ala
        50   55   60

Leu Asp Tyr Leu Leu Ala Gln Glu Gly Gly Val Cys Arg Lys Phe Ser
65   70   75   80

Leu Thr Asn Cys Cys Leu Lys Ile Asp Asp Asn Gly Lys Val Val Lys
                85   90   95

Gln Lys Ala Ala Arg Ile Gln Lys Leu Ala His Ile Pro Val Lys Thr
                100   105   110

<210> 4149
<211> 116
<212> PRT
<213> Homo sapiens

<400> 4149

Met Asp Lys Phe Pro Asn Ala Tyr Thr Leu Pro Arg Leu Asn Gln Glu
1   5   10   15

Glu Ile Glu Ser Leu Asn Arg Pro Thr Met Ser Ser Glu Val Glu Ala
                20   25   30

Val Ile Asn Ser Ile Pro Thr Lys Lys Gly Pro Gly Pro Asp Gly Phe
            35   40   45

Thr Asp Glu Phe Tyr Gln Met Tyr Lys Glu Glu Leu Val Pro Phe Ile
        50   55   60

Gln Ile Glu Thr Ile Pro Lys Ile Glu Ala Glu Gly Leu Leu Leu Asn
65   70   75   80

Ser Phe Cys Glu Val Ser Ile Ile Leu Ile Pro Lys Pro Gly Arg His
                85   90   95

Thr Lys Gln Asn Lys Thr Lys Gln Asn Lys Thr Lys Lys Lys Thr Ser
                100   105   110

Asp Gln Tyr Pro
        115

<210> 4150
<211> 306
<212> PRT
<213> Homo sapiens

<400> 4150

Met Asp Gly Arg Gly Ala Phe Trp Thr Val Ala Ile Pro Arg Ala Arg
1   5   10   15

Gln Glu Gly Leu Gly Arg Leu Gly Leu Pro Phe Pro Val Lys Arg Thr
                20   25   30

Pro Pro Ala Pro Gln Asn Pro Gly Gly Ser Thr Gln Ala Pro Gln Arg
            35   40   45

Val Val Gly Lys Ser His Ser Gly Ile Arg Met Pro Ala Lys Ser Arg
        50   55   60

Asn Leu Arg Leu Glu Ser Lys Leu Asn Arg Lys Val Val Lys Tyr Lys

```
             65                      70                      75                      80
Trp Gly Lys Gln Gly Ser Gly Ala Gly Arg Glu Leu Val Pro Ala Phe
                         85                      90                      95
Pro Thr Asn Ala Gly Leu Gly Arg Arg Asp Arg Cys Arg Pro Pro Pro
                    100                     105                     110
Ala Gly Gly Asp Val Ala Ser His Gly Leu Pro Gly Ser Gly Val Gly
                115                     120                     125
Tyr Ser Cys Asn Gln Arg Glu Glu Gly Leu Arg Gly Gly Cys Gly Gly
            130                     135                     140
Ile Pro His Val Pro Leu Phe Leu Ser Pro Leu Pro Leu Asp Ala Ser
145                     150                     155                     160
Gly Gln Arg Pro Ser Ser Thr Tyr Arg Gln Ser Leu Arg Arg Gly Leu
                    165                     170                     175
Gly Thr Arg Ala His Gln Ser Pro Ala Asn Glu Ile Pro Glu Leu Gly
                180                     185                     190
Asp Leu Arg Gly Ser Arg Leu Ala Gln Glu Pro Ala Val Leu Phe Gly
            195                     200                     205
Leu Arg Pro Ser Ile Ser Lys Arg Gly Leu Leu Ala Arg Arg Leu Trp
            210                     215                     220
Ala Gln Pro Met Leu Leu Ser Gly Trp Val Val Ser Thr Thr Thr Thr
225                     230                     235                     240
Ile Ile Thr Val Thr Val Thr Phe Thr Pro Thr Gly Leu Leu Cys Val
                    245                     250                     255
Lys His Ser Arg Gly Pro Leu Gln Pro Thr Cys Gln Glu Ser Ala Pro
                260                     265                     270
Glu Asn Arg Val Gly Lys Gly Gln Cys Pro Ser Glu Ser Ser Cys Arg
            275                     280                     285
Gln Lys Ala Gly Glu Val Arg Ser Phe Val Tyr Leu Lys Gly Asn Lys
            290                     295                     300
Leu Leu
305
```

<213> Homo sapiens

<400> 4151

```
Met Ala Pro Thr Ser Thr Trp Ala Pro Gly Leu Gly Thr Gly Phe Ser
 1               5                  10                  15
Leu Gly Ser Ser Ser Ser Leu Leu Pro Thr Thr Asp Pro His Gln Val
                20                  25                  30
Leu Ser Arg Ser Gly Pro Asn Gly Ser Leu Glu Phe Gly Pro Leu Val
            35                  40                  45


Ser Ser Pro Ala Ser Pro Phe Leu Val Gln Ala Gln Ile Ser Leu Thr
            50                  55                  60
Lys Ile Val Gln Leu Pro Ser Arg Asn Gly Glu Phe Ile Pro Leu Ile
 65                  70                  75                  80
Leu Pro Pro Ser Phe Arg Leu Pro Thr Leu Phe Cys Ser Gln Ser Asp
                85                  90                  95
Leu Lys Val Phe Leu Trp Leu His Ser Cys Ala Leu Lys Leu Ser Val
                100                 105                 110
Ala Pro Gln Gly Pro Gln Arg Arg Gly Arg Gly Gly
            115                 120
```

<210> 4152

<211> 131

<212> PRT

<213> Homo sapiens

<400> 4152

```
Met Lys Ala Thr Asn Phe Leu Leu His Ser Cys Leu Ala Ala Ile Tyr
 1               5                  10                  15
Leu Gly Gln Pro Ile Ser Leu Ala Pro Gln Arg His Thr Arg Leu Gln
                20                  25                  30
Tyr Pro Lys Arg Pro Tyr Gln Phe Leu Ser Glu Ala Arg Gln Ile Val
            35                  40                  45
Lys Asn Gln Ile Cys Ser Lys Val Leu Gly Pro Pro Leu Ser Ser Asp
            50                  55                  60
```

Arg Cys Arg Gln Val Phe Ser Leu Ala Gln Val Pro Val Ala Ser Leu
65   70   75   80

Pro Leu Glu Val Trp Pro Ala Ser Leu Ala Val Asn Pro Val Arg Gly
                85   90   95

Pro His Leu Ser Leu Ser Ala Ala Ile Ser Phe Cys Thr Ala Ala Ile
                100   105   110

Leu Leu Pro Ala Ser Ser Pro Pro Pro Ser Tyr Phe Leu Phe Ser Leu
            115   120   125

Leu Pro Phe
    130

<210> 4153

<211> 151

<212> PRT

<213> Homo sapiens

<400> 4153

Met Thr Lys Glu Tyr Gln Asp Leu Gln His Leu Asp Asn Glu Glu Ser
 1   5   10   15

Asp His His Gln Leu Arg Lys Gly Glu Gly His Leu Ala Leu Pro Leu
                20   25   30

Gln Gly Glu Asn Leu Ala Val Leu His Pro Pro Ala Thr Ala Pro Thr
            35   40   45

Leu Ala Arg Glu Pro Gly Ser Leu Ser Gly Ser Val Ser Leu Pro Gln
        50   55   60

His Trp Glu Arg Cys Arg Asn Cys Leu Ser Gln Glu Arg Gly Gly Val
65   70   75   80

Trp Gly Trp Ile Pro Phe Ile Gly Asp Arg Cys Pro Lys Leu Ser Cys
                85   90   95

Ala Ser Trp Pro Ser Glu Val Asp Pro Gly Val Trp Glu Gln Leu Glu
                100   105   110

Ala Gly Glu Met Arg Ser Leu Ser Ala Ser Tyr Asp Glu Val Thr Pro
            115   120   125

Pro Leu Pro Phe Pro Phe Gln His His Pro Gly Thr Pro Val Val Arg
            130   135   140

Ala Cys Ala Cys Val Cys Gln
145   150

<210> 4154

<211> 110

<212> PRT

<213> Homo sapiens

<400> 4154

Met Gly Gly Val Pro Glu Pro Phe Pro Ser Pro Leu Arg Arg Gln Gln
 1   5   10   15

Arg Arg Val Gly Lys Trp Ser Gly Ser Ser Leu Gly Gly Leu Ala Gln
            20   25   30

Val Leu Arg Asn Cys Asn Arg Lys Cys Arg Ser Trp Ser Glu Pro Met
         35   40   45

Arg Arg Lys Pro His Leu Cys Ile Ala His Ala Ser Trp Arg Gly Asp
      50   55   60

Ile Ile His Ser His Ala Ser His Leu Ser Pro Gln Gly Pro Arg Glu
 65   70   75   80

Lys Pro Gln Thr Pro Phe Ser Cys Arg Val Trp Gly Trp Trp Cys Cys
               85   90   95

Arg Gly Arg Ala Gly Trp Gly Ser Pro Asp Phe Phe Cys Pro
            100   105   110

<210> 4155

<211> 589

<212> PRT

<213> Homo sapiens

<400> 4155

Met Ala Ala Glu Lys Gln Val Pro Gly Gly Gly Gly Gly Gly Gly Ser
 1   5   10   15

Gly Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Arg Gly

```
                 20                      25                      30
Ala Gly Gly Glu Glu Asn Lys Glu Asn Glu Arg Pro Ser Ala Gly Ser
         35                      40                      45
Lys Ala Asn Lys Glu Phe Gly Asp Ser Leu Ser Leu Glu Ile Leu Gln
     50                      55                      60
Ile Ile Lys Glu Ser Gln Gln Gln His Gly Leu Arg His Gly Asp Phe
 65                      70                      75                      80
Gln Arg Tyr Arg Tyr Leu Leu Leu Val Leu Met Asp Ala Glu Arg Ala
                 85                      90                      95
Trp Ser Tyr Ala Met Gln Leu Lys Gln Glu Ala Asn Thr Glu Pro Arg
                 100                     105                     110
Lys Arg Phe His Leu Leu Ser Arg Leu Arg Lys Ala Val Lys His Ala
         115                     120                     125
Glu Glu Leu Glu Arg Leu Cys Glu Ser Asn Arg Val Asp Ala Lys Thr
     130                     135                     140
Lys Leu Glu Ala Gln Ala Tyr Thr Ala Tyr Leu Ser Gly Met Leu Arg
145                     150                     155                     160
Phe Glu His Gln Glu Trp Lys Ala Ala Ile Glu Ala Phe Asn Lys Cys
                 165                     170                     175
Lys Thr Ile Tyr Glu Lys Leu Ala Ser Ala Phe Thr Glu Glu Gln Ala
                 180                     185                     190
Val Leu Tyr Asn Gln Arg Val Glu Glu Ile Ser Pro Asn Ile Arg Tyr
         195                     200                     205
Cys Ala Tyr Asn Ile Gly Asp Gln Ser Ala Ile Asn Glu Leu Met Gln
     210                     215                     220
Met Arg Leu Arg Ser Gly Gly Thr Glu Gly Leu Leu Ala Glu Lys Leu
225                     230                     235                     240
Glu Ala Leu Ile Thr Gln Thr Arg Ala Lys Gln Ala Ala Thr Met Ser
                 245                     250                     255
Glu Val Glu Trp Arg Gly Arg Thr Val Pro Val Lys Ile Asp Lys Val
                 260                     265                     270
Arg Ile Phe Leu Leu Gly Leu Ala Asp Asn Glu Ala Ala Ile Val Gln
         275                     280                     285
Ala Glu Ser Glu Glu Thr Lys Glu Arg Leu Phe Glu Ser Met Leu Ser
     290                     295                     300
Glu Cys Arg Asp Ala Ile Gln Val Val Arg Glu Glu Leu Lys Pro Asp
```

```
305                    310                    315                    320
Gln Lys Gln Arg Asp Tyr Ile Leu Glu Gly Glu Pro Gly Lys Val Ser
                325                    330                    335
Asn Leu Gln Tyr Leu His Ser Tyr Leu Thr Tyr Ile Lys Leu Ser Thr
                340                    345                    350
Ala Ile Lys Arg Asn Glu Asn Met Ala Lys Gly Leu Gln Arg Ala Leu
            355                    360                    365
Leu Gln Gln Gln Pro Glu Asp Asp Ser Lys Arg Ser Pro Arg Pro Gln
        370                    375                    380
Asp Leu Ile Arg Leu Tyr Asp Ile Ile Leu Gln Asn Leu Val Glu Leu
385                    390                    395                    400
Leu Gln Leu Pro Gly Leu Glu Glu Asp Lys Ala Phe Gln Lys Glu Ile
                405                    410                    415
Gly Leu Lys Thr Leu Val Phe Lys Ala Tyr Arg Cys Phe Phe Ile Ala
                420                    425                    430
Gln Ser Tyr Val Leu Val Lys Lys Trp Ser Glu Ala Leu Val Leu Tyr
            435                    440                    445
Asp Arg Val Leu Lys Tyr Ala Asn Glu Val Asn Ser Asp Ala Gly Ala
        450                    455                    460
Phe Lys Asn Ser Leu Lys Asp Leu Pro Asp Val Gln Glu Leu Ile Thr
465                    470                    475                    480
Gln Val Arg Ser Glu Lys Cys Ser Leu Gln Ala Ala Ala Ile Leu Asp
                485                    490                    495
Ala Asn Asp Ala His Gln Thr Glu Thr Ser Ser Ser Gln Val Lys Asp
            500                    505                    510
Asn Lys Pro Leu Val Glu Arg Phe Glu Thr Phe Cys Leu Asp Pro Ser
            515                    520                    525
Leu Val Thr Lys Gln Ala Asn Leu Val His Phe Pro Pro Gly Phe Gln
        530                    535                    540
Pro Ile Pro Cys Lys Pro Leu Phe Phe Asp Leu Ala Leu Asn His Val
545                    550                    555                    560
Ala Phe Pro Pro Leu Glu Asp Glu Leu Glu Gln Lys Thr Lys Ser Gly
                565                    570                    575
Leu Thr Gly Tyr Ile Lys Gly Ile Phe Gly Phe Arg Ser
            580                    585
```

<210> 4156

<211> 356

<212> PRT

<213> Homo sapiens

<400> 4156

Met Phe Ser Ser Tyr Pro Leu Pro Asn Cys Tyr Leu Ser Asp Ile Thr
1   5   10   15

Arg Asn Ala Gly Ile Lys Gln Asp Asn Asp Leu Asp Lys Leu Leu Leu
            20   25   30

Cys Leu Lys Ile Ser Asp Lys Gln Thr Glu Trp Ile Glu Asn Cys Gln
        35   40   45

Arg Gln Phe Cys Lys Met Met Lys Ala Lys Pro Asp Ile Ile Ser Gly
    50   55   60

Glu Ala Leu Ile Glu Leu Leu Glu Lys Phe Val Leu His Leu Thr Glu
65   70   75   80

Ser Pro Ser Glu Cys Tyr Phe Pro Ser Val Glu Tyr Thr Ala Thr Asp
                85   90   95

Ala Asn Val Lys Asn Glu Ser Leu Ser Ser Val Gln Gln Leu Gly Ile
            100   105   110

Lys Met Thr Val Arg Tyr Gly Lys Phe Leu Ser Leu Leu Lys Asp Gly
        115   120   125

Ala Glu Asn Asp Leu Thr Trp Val Leu Lys His Cys Glu Arg Phe Leu
    130   135   140

Lys Gln Gln Gln Thr Ser Ile Lys Ser Ser Leu Leu Cys Leu Gln Gly
145   150   155   160

Asn Tyr Ala Gly His Asp Trp Phe Val Ser Ser Leu Phe Met Ile Met
                165   170   175

Leu Gly Asp Lys Glu Lys Thr Phe Gln Phe Leu His Gln Phe Ser Arg
            180   185   190

Leu Leu Thr Ser Ala Phe Leu Trp Ser Pro Arg Leu His Ile Ser Ser
            195   200   205

Tyr Leu Pro Asn Asp Thr Val Glu Ser Gly Ile His Pro Val Tyr Phe
    210   215   220

Cys Ser Thr His Tyr Ile Glu Met Leu Leu Lys Ala Glu Leu Pro Leu
225   230   235   240

Val Phe Ser Ala Phe His Met Ser Gly Phe Ala Pro Ser Gln Ile Cys
                245   250   255

Leu Gln Trp Ile Thr Gln Cys Phe Trp Asn Tyr Leu Asp Trp Ile Glu
                260   265   270

Ile Cys His Tyr Ile Ala Thr Cys Val Phe Leu Gly Pro Asp Tyr Gln
                275   280   285

Val Tyr Ile Cys Ile Ala Val Phe Lys His Leu Gln Gln Asp Ile Leu
    290   295   300

Gln His Thr Gln Thr Gln Asp Leu Gln Val Phe Leu Lys Glu Glu Ala
305   310   315   320

Leu His Gly Phe Arg Val Ser Asp Tyr Phe Glu Tyr Met Glu Ile Leu
                325   330   335

Glu Gln Asn Tyr Arg Thr Val Leu Leu Arg Asp Met Arg Asn Ile Arg
                340   345   350

Leu Gln Ser Thr
                355

<210> 4157

<211> 137

<212> PRT

<213> Homo sapiens

<400> 4157

Met Ser Asn Cys Phe Leu Lys Val Cys Pro Ala Val Ser Ser Tyr Ser
1   5   10   15

Pro Leu Ser Val Gln Val Leu Phe Tyr Phe Pro Ile Ala Pro Cys Pro
                20   25   30

His Arg Val Gly Val Gly Glu Val Gln Cys Ala Cys Val His Ile His
                35   40   45

Ile Phe Arg Cys Tyr Gln Leu Gly Ser Gln Leu Ile Cys Ala Ser Phe
    50   55   60

Leu Gly Thr Val Leu His Pro Phe Pro Pro Val Gly Ser Ala Phe Glu
65   70   75   80

Ile Gln Thr Ser Ile Leu Asn Tyr Thr Ile Leu Thr Asn Ser Leu Thr
                85   90   95

Pro Met Arg Leu Tyr Leu Pro His Val Arg Val Ser Gly Ser Leu Cys
              100   105   110

Glu Phe Val Tyr Arg Tyr Leu Lys Ser Asn Gln Leu Ser His Tyr Ser
              115   120   125

His Gln Ser Ser Pro Arg His His Phe
      130   135

<210> 4158

<211> 110

<212> PRT

<213> Homo sapiens

<400> 4158

Met Asn His Leu Pro Pro Asn His Tyr Arg Ser His Val Phe Thr Cys
    1   5   10   15

His Val Asp Gln Tyr Leu Thr Val Glu Thr Ala Gly Gly Met Glu Lys
                20   25   30

Glu Ala Val Ser Val Thr Val Leu Leu Ser Ala Ala Pro Cys Leu Leu
              35   40   45

Ser Cys Phe Leu Gly Ser Ser Val Ser Gly Leu Ala Phe Trp Val Ser
          50   55   60

Gln Gln Lys Thr Lys Gly Pro Glu Arg Cys Lys Asn Thr His His Leu
65   70   75   80

Ala Gly Asn Asn Phe Pro Ala Cys Tyr Leu Phe Arg Asp Pro Glu His
                85   90   95

Thr Ala Phe Pro Arg Arg Leu Leu Pro Pro Ala Thr Glu Glu
              100   105   110

<210> 4159

<211> 192

<212> PRT

<213> Homo sapiens

<400> 4159

Met Ala Cys Gly Ala Thr Leu Lys Arg Pro Met Glu Phe Glu Ala Ala
1   5   10   15

Leu Leu Ser Pro Gly Ser Pro Lys Arg Arg Arg Cys Ala Pro Leu Pro
                20   25   30

Gly Pro Thr Pro Gly Leu Arg Pro Pro Asp Ala Glu Pro Pro Pro Pro
                35   40   45

Phe Gln Thr Gln Thr Pro Pro Gln Ser Leu Gln Gln Pro Ala Pro Pro
        50   55   60

Gly Ser Glu Arg Arg Leu Pro Thr Pro Glu Gln Ile Phe Gln Asn Ile
65   70   75   80

Lys Gln Glu Tyr Ser Arg Tyr Gln Arg Trp Arg His Leu Glu Val Val
                85   90   95

Leu Asn Gln Ser Glu Ala Cys Ala Ser Glu Ser Gln Pro His Ser Ser
                100   105   110

Ala Leu Thr Ala Pro Ser Ser Pro Gly Ser Ser Trp Met Lys Lys Asp
        115   120   125

Gln Pro Thr Phe Thr Leu Arg Gln Val Gly Ile Ile Cys Glu Arg Leu
        130   135   140

Leu Lys Asp Tyr Glu Asp Lys Ile Arg Glu Glu Tyr Glu Gln Ile Leu
145   150   155   160

Asn Thr Lys Leu Ala Glu Gln Tyr Glu Ser Phe Val Lys Phe Thr His
                165   170   175

Asp Gln Ile Met Arg Arg Tyr Gly Thr Arg Pro Thr Ser Tyr Val Ser
                180   185   190

<210> 4160
<211> 352
<212> PRT
<213> Homo sapiens

<400> 4160

Met Thr Ala Met Glu Met Ser Thr Glu Leu Ser Met Phe Phe Trp Lys
1   5   10   15

Glu Thr Gln Thr Arg Ile Pro Gly Arg Trp Ser Gly Arg Arg Arg Glu
　　　　　　20　　　　　　　　　25　　　　　　　　　30

Ser Gln Ala Arg Arg Met Val Ala Arg Arg Gly Arg Gly Ala Ser Arg
　　　　35　　　　　　　　　40　　　　　　　　　45

Gly Arg Glu Phe Arg Gly Gln Glu Asn Gly Leu Asp Gly Thr Lys Ser
　　50　　　　　　　　　55　　　　　　　　　60

Gly Gly Pro Ser Gly Arg Gly Thr Glu Arg Gly Arg Arg Gly Arg Gly
65　　　　　　　　　70　　　　　　　　　75　　　　　　　　　80

Arg Gly Arg Gly Gly Ser Gly Arg Arg Gly Gly Arg Phe Ser Ala Gln
　　　　　　　85　　　　　　　　90　　　　　　　　　95

Gly Met Gly Thr Phe Asn Pro Ala Asp Tyr Ala Glu Pro Ala Asn Thr
　　　　　100　　　　　　　　　105　　　　　　　　　110

Asp Asp Asn Tyr Gly Asn Ser Ser Val Ser Ser Ser Leu Asn Ser Gly
　　　　115　　　　　　　　　120　　　　　　　　　125

Ser Ser Leu Gly Leu Ser Leu Gly Ser Asn Ser Thr Val Thr Ala Ser
　　　130　　　　　　　　　135　　　　　　　　　140

Thr Arg Ser Ser Val Ala Thr Thr Ser Gly Lys Ala Pro Pro Asn Leu
145　　　　　　　　　150　　　　　　　　　155　　　　　　　　　160

Pro Pro Gly Val Pro Pro Leu Leu Pro Asn Pro Tyr Ile Met Ala Pro
　　　　　　165　　　　　　　　　170　　　　　　　　　175

Gly Leu Leu His Ala Tyr Pro Pro Gln Val Tyr Gly Tyr Asp Asp Leu
　　　　　180　　　　　　　　　185　　　　　　　　　190

Gln Met Leu Gln Thr Arg Phe Pro Leu Asp Tyr Tyr Ser Ile Pro Phe
　　　　　195　　　　　　　　　200　　　　　　　　　205

Pro Thr Pro Thr Thr Pro Leu Thr Gly Arg Asp Gly Ser Leu Ala Ser
　　　　210　　　　　　　　　215　　　　　　　　　220

Asn Pro Tyr Ser Gly Asp Leu Thr Lys Phe Gly Arg Gly Asp Ala Ser
225　　　　　　　　　230　　　　　　　　　235　　　　　　　　　240

Ser Pro Ala Pro Ala Thr Thr Leu Ala Gln Pro Gln Gln Asn Gln Thr
　　　　　　245　　　　　　　　　250　　　　　　　　　255

Gln Thr His His Thr Thr Gln Gln Thr Phe Leu Asn Pro Ala Leu Pro
　　　　　260　　　　　　　　　265　　　　　　　　　270

Pro Gly Tyr Ser Tyr Thr Ser Leu Pro Tyr Tyr Thr Gly Val Pro Gly
　　　　275　　　　　　　　　280　　　　　　　　　285

Leu Pro Ser Thr Phe Gln Tyr Gly Pro Ala Val Phe Pro Val Ala Pro
　　　290　　　　　　　　　295　　　　　　　　　300

Thr Ser Ser Lys Gln His Gly Val Asn Val Ser Val Asn Ala Ser Ala
305   310   315   320
Thr Pro Phe Gln Gln Pro Ser Gly Tyr Gly Ser His Gly Tyr Asn Thr
                325   330   335

Gly Arg Lys Tyr Pro Pro Pro Tyr Lys His Phe Trp Thr Ala Glu Ser
            340   345   350

<210> 4161
<211> 118
<212> PRT
<213> Homo sapiens

<400> 4161
Met Glu Ala Leu Leu Ser Val Gln Glu Ala Ser Arg Cys Pro Pro Gly
 1   5   10   15
Phe Phe Pro Ser Ser Gly Trp Pro Arg Ser Gln Ala Trp Ser Thr Arg
                20   25   30
Ser Gln Pro Val Gln Arg Pro Val Ala Cys Leu Pro Gly Pro Leu Pro
            35   40   45
Gly Leu Ala Leu Pro Gly Asp Leu Ser Ile Ile Pro Glu Lys Trp Met
        50   55   60
Glu Arg Val Met Ala Pro Leu Lys Arg Gln Thr Ser Arg Arg Leu Glu
65   70   75   80
Glu Ser Lys Gly Ser Cys Pro Gln Arg Pro Val Pro Ala Pro Thr Gln
                85   90   95
Pro Leu Val Cys Pro Pro Ser Leu Leu Ser Ser Thr Leu Leu Cys Cys
                100   105   110
Pro Leu Leu Leu Thr Arg
            115

<210> 4162
<211> 279
<212> PRT

<213> Homo sapiens

<400> 4162

Met Met Leu Met Gln Ala Leu Val Leu Phe Thr Leu Asp Ser Leu Asp
1   5   10   15

Met Leu Pro Ala Val Lys Ala Thr Trp Leu Tyr Gly Ile Gln Ile Thr
            20   25   30

Ser Leu Leu Leu Val Cys Ile Leu Gln Phe Phe Asn Ser Met Ile Leu
        35   40   45

Gly Ser Leu Leu Ile Ser Phe Asn Leu Ser Val Phe Ile Ala Arg Lys
    50   55   60

Leu Gln Lys Asn Leu Lys Thr Gly Ser Phe Leu Asn Arg Leu Gly Lys
65   70   75   80

Leu Leu Leu His Leu Phe Met Val Leu Cys Leu Thr Leu Phe Leu Asn
            85   90   95

Asn Ile Ile Lys Lys Ile Leu Asn Leu Lys Ser Asp Glu His Ile Phe
            100   105   110

Lys Phe Leu Lys Ala Lys Phe Gly Leu Gly Ala Thr Arg Asp Phe Asp
        115   120   125

Ala Asn Leu Tyr Leu Cys Glu Glu Ala Phe Gly Leu Leu Pro Phe Asn
        130   135   140

Thr Phe Gly Arg Leu Ser Asp Thr Leu Leu Phe Tyr Ala Tyr Ile Phe
145   150   155   160

Val Leu Ser Ile Thr Val Ile Val Ala Phe Val Val Ala Phe His Asn
            165   170   175

Leu Ser Asp Ser Thr Asn Gln Gln Ser Val Gly Lys Met Glu Lys Gly
            180   185   190

Thr Val Asp Leu Lys Pro Glu Thr Ala Tyr Asn Leu Ile His Thr Ile
        195   200   205

Leu Phe Gly Phe Leu Ala Leu Ser Thr Met Arg Met Lys Tyr Leu Trp
        210   215   220

Thr Ser His Met Cys Val Phe Ala Ser Phe Gly Leu Cys Ser Pro Glu
225   230   235   240

Ile Trp Glu Leu Leu Leu Lys Ser Val His Leu Tyr Asn Pro Lys Arg
            245   250   255

Ile Cys Ile Met Arg Tyr Ser Val Pro Ile Leu Ile Leu Leu Tyr Leu

```
                260                   265                    270
Cys Tyr Lys Asn Gln Lys Ser
                275


<210> 4163
<211> 221
<212> PRT
<213> Homo sapiens


<400> 4163
Met Ala Ser Ser Thr Ser Leu Pro Ala Pro Gly Ser Arg Pro Lys Lys
 1               5                   10                  15
Pro Leu Gly Lys Met Ala Asp Trp Phe Arg Gln Thr Leu Leu Lys Lys
                20                  25                  30
Pro Lys Lys Arg Pro Asn Ser Pro Glu Ser Thr Ser Ser Asp Ala Ser
                35                  40                  45
Gln Pro Thr Ser Gln Asp Asn Pro Leu Pro Pro Ser Leu Ser Ser Val
        50                  55                  60
Thr Ser Pro Ser Leu Pro Pro Thr His Ala Ser Asp Ser Gly Ser Ser
65                  70                  75                  80
Arg Trp Ser Lys Asp Tyr Asp Val Cys Val Cys His Ser Glu Glu Asp
                85                  90                  95
Leu Val Ala Ala Gln Asp Leu Val Ser Tyr Leu Glu Gly Ser Thr Ala
                100                 105                 110
Ser Leu Arg Cys Phe Leu Gln Leu Arg Asp Ala Thr Pro Gly Gly Ala
                115                 120                 125
Ile Val Ser Glu Leu Cys Gln Ala Leu Ser Ser Ser His Cys Arg Val
                130                 135                 140
Leu Leu Ile Thr Pro Gly Phe Leu Gln Asp Pro Trp Cys Lys Tyr Gln
145                 150                 155                 160
Met Leu Gln Ala Leu Thr Glu Ala Pro Gly Ala Glu Gly Cys Thr Ile
                165                 170                 175
Pro Leu Leu Ser Gly Leu Ser Arg Ala Ala Tyr Pro Pro Glu Leu Arg
                180                 185                 190
Phe Met Tyr Tyr Val Asp Gly Arg Gly Pro Asp Gly Gly Phe Arg Gln
```

```
              195                 200                 205
Val Lys Glu Ala Val Met Arg Tyr Leu Gln Thr Leu Ser
    210                 215                 220
```

<210> 4164

<211> 458

<212> PRT

<213> Homo sapiens

<400> 4164

```
Met Glu Glu Glu Lys Asp Asp Ser Pro Gln Ala Asp Phe Cys Leu Gly
 1               5                  10                  15
Thr Ala Leu His Ser Trp Gly Leu Trp Phe Thr Glu Glu Gly Ser Pro
             20                  25                  30
Ser Thr Met Leu Thr Gly Ile Ala Val Gly Ala Leu Leu Ala Leu Ala
             35                  40                  45
Leu Val Gly Val Leu Ile Leu Phe Met Phe Arg Arg Leu Arg Gln Phe
         50                  55                  60
Arg Gln Ala Gln Pro Thr Pro Gln Tyr Arg Phe Arg Lys Arg Asp Lys
 65                  70                  75                  80
Val Met Phe Tyr Gly Arg Lys Ile Met Arg Lys Val Thr Thr Leu Pro
                 85                  90                  95
Asn Thr Leu Val Glu Asn Thr Ala Leu Pro Arg Gln Arg Ala Arg Lys
             100                 105                 110
Arg Thr Lys Val Leu Ser Leu Ala Lys Arg Ile Leu Arg Phe Lys Lys
             115                 120                 125
Glu Tyr Pro Ala Leu Gln Pro Lys Glu Pro Pro Pro Ser Leu Leu Glu
         130                 135                 140
Ala Asp Leu Thr Glu Phe Asp Val Lys Asn Ser His Leu Pro Ser Glu
145                 150                 155                 160
Val Leu Tyr Met Leu Lys Asn Val Arg Val Leu Gly His Phe Glu Lys
                 165                 170                 175
Pro Leu Phe Leu Glu Leu Cys Lys His Ile Val Phe Val Gln Leu Gln
             180                 185                 190
Glu Gly Glu His Val Leu Gln Pro Arg Glu Pro Asp Pro Ser Ile Cys
```

```
            195                    200                    205
Val Val Gln Asp Gly Arg Leu Glu Val Cys Ile Gln Asp Thr Asp Gly
    210                    215                    220
Thr Glu Val Val Val Lys Glu Val Leu Ala Gly Asp Ser Val His Ser
225                    230                    235                    240
Leu Leu Ser Ile Leu Asp Ile Ile Thr Gly His Ala Ala Pro Tyr Lys
                245                    250                    255
Thr Val Ser Val Arg Ala Ala Ile Pro Ser Thr Ile Leu Arg Leu Pro
                260                    265                    270
Ala Ala Ala Phe His Gly Val Phe Glu Lys Tyr Pro Glu Thr Leu Val
                275                    280                    285
Arg Val Val Gln Ile Ile Met Val Arg Leu Gln Arg Val Thr Phe Leu
    290                    295                    300
Ala Leu His Asn Tyr Leu Gly Leu Thr Thr Glu Leu Phe Asn Ala Glu
305                    310                    315                    320
Ser Gln Ala Ile Pro Leu Val Ser Val Ala Ser Val Ala Ala Gly Lys
                325                    330                    335
Ala Lys Lys Gln Val Phe Tyr Gly Glu Glu Glu Arg Leu Lys Lys Pro
                340                    345                    350
Pro Arg Leu Gln Glu Ser Cys Asp Ser Asp His Gly Gly Gly Arg Pro
                355                    360                    365
Ala Ala Ala Gly Pro Leu Leu Lys Arg Ser His Ser Val Pro Ala Pro
                370                    375                    380
Ser Ile Arg Lys Gln Ile Leu Glu Glu Leu Glu Lys Pro Gly Ala Gly
385                    390                    395                    400
Asp Pro Asp Pro Ser Ala Pro Gln Ala Arg Val Leu Cys Leu Leu Pro
                405                    410                    415
Gln Cys Leu Gly Gly Leu Pro Pro Thr Asp Thr Ser Val Tyr Ser Ser
                420                    425                    430
Ala Ser Ser Asp Cys Cys Gly Cys Ser Met Pro Val Leu Cys Ile Met
                435                    440                    445
Gly His Lys Pro His Val Thr Val Asp Thr
    450                    455
```

<211> 164

<212> PRT

<213> Homo sapiens

<400> 4165

Met Cys His His Ala Arg Leu Ile Val Phe Val Phe Leu Val Glu Thr
1   5   10   15

Gly Phe Leu His Val Gly Gln Ala Gly Leu Glu Leu Leu Thr Ser Gly
            20   25   30

Asp Pro Pro Ala Ser Ala Ser Gln Ser Ala Gly Ile Thr Gly Met Ser
        35   40   45

His Cys Ala Gln Pro Thr Ile Ser Tyr Phe His Val Phe Leu Cys Val
        50   55   60

Leu Phe Tyr Phe Ser Arg Trp Ser Leu Ser Val Ala Gln Ala Gly Val
65   70   75   80

Gln Trp Arg Asp Leu Gly Ser Leu Pro Gly Phe Lys Arg Phe Ser Cys
                85   90   95

Leu Ser Leu Pro Ser Asn Trp Asp Cys Arg His Pro Pro Ser Cys Pro
            100   105   110

Ala Lys Phe Cys Thr Phe Val Glu Met Glu Phe His His Val Gly Gln
            115   120   125

Ala Gly Leu Glu Leu Leu Thr Ser Gly Asp Leu Pro Thr Leu Ala Ser
        130   135   140

Gln Ser Ala Gly Ile Thr Gly Val Ser His His Ala Trp Thr Arg Cys
145   150   155   160

Cys Cys Cys Phe

<210> 4166

<211> 165

<212> PRT

<213> Homo sapiens

<400> 4166

Met Pro Thr Met Ser Ser Lys Val Leu Asp Ser Leu Val Val Ala Leu

```
 1               5                  10                 15
Leu Ser Tyr Trp Leu Asp Asn Pro Lys His Cys Arg Lys Leu His Ser
                20                  25                 30
Ala Pro Leu Gly Leu Pro Gly Ser Ile Arg Leu Leu Pro Leu Leu Ser
            35                  40                 45
Leu Gly Thr His Leu Ser Lys Ser Ser Ile Leu Lys Arg Lys Phe Leu
        50                  55                 60
Phe Trp Arg Ser Phe Val Asn Lys Thr Ser Ile Gly Trp Ala Glu Trp
65                  70                  75                 80
Leu Ile Thr Val Ile Ser Ala Leu Arg Asp Ala Lys Val Gly Arg Ser
                85                  90                 95
Pro Glu Val Arg Ser Leu Arg Pro Ala Trp Pro Thr Trp Trp Ser Pro
            100                 105                110
Val Ser Thr Lys Asn Thr Lys Lys Leu Gly Arg Tyr Gly Gly Ala Arg
            115                 120                125
Leu Trp Ser Gln Leu Phe Gly Arg Leu Arg Gln Asp Asn His Leu Asn
        130                 135                140
Arg Gly Asp Arg Gly Cys Ser Glu Pro Arg Leu Cys His Cys Pro Pro
145                 150                 155                160
Ala Trp Ala Thr Lys
                165
```

<210> 4167
<211> 148
<212> PRT
<213> Homo sapiens

<400> 4167

```
Met Pro Pro Arg Leu Ala Asn Ile Leu Tyr Phe Ser Arg Asp Gly Gly
 1               5                  10                 15
Phe Cys Arg Val Gly Leu Ala Gly Leu Lys Leu Leu Ser Ser Gly Asp
                20                  25                 30
Pro Pro Ala Ser Val Ser Arg Gly Ala Gly Ile Thr Gly Val Ser His
            35                  40                 45
Arg Ala Arg Pro Leu Asn Thr Cys Gly Pro Val Ile His Pro Ala Leu
```

```
           50                      55                      60
Lys Arg Ser Ser His Leu Pro Phe Trp Glu Leu Gly Glu Thr Ala Gln
 65                      70                      75                      80
Ile Val Thr Ala Pro Pro Pro Pro Arg Ala Pro Leu Thr Gly Leu Trp
                        85                      90                      95
Val Glu Pro Ala Pro Val Pro Ala Pro Ser Thr Glu Ala Gly Thr Val
                       100                     105                     110
His Thr Ala Ser Thr Ala Arg Pro Gly Glu Trp Ala Ala Val His Leu
                       115                     120                     125
Gly Cys Pro Ala Gln Ser Gln Ala Ser Ala Glu Pro Ile Leu Pro His
                       130                     135                     140
Cys Thr Gln His
145
```

<210> 4168

<211> 153

<212> PRT

<213> Homo sapiens

<400> 4168

```
Met Phe Ile Phe Gly Ser Arg Arg Thr Arg Ala Gly Val Leu Arg Val
 1                       5                      10                      15
His Phe Arg Leu Lys Ala Tyr Thr Cys Arg Cys Ala Thr Cys Leu Phe
                        20                      25                      30
Ser Val Gln Gly Val His Val Gln Val Cys Tyr Val Phe Ile Phe Gly
                        35                      40                      45
Ser Arg Arg Thr Arg Ala Gly Val Leu Arg Val His Phe Arg Phe Lys
                        50                      55                      60
Ala Tyr Thr Cys Arg Cys Val Thr Cys Ser Phe Ser Ala Gln Gly Val
 65                      70                      75                      80
His Val Gln Val Cys His Met Gly Lys Ser Ser Val Thr Gly Val Trp
                        85                      90                      95
Cys Ala Asp Asn Phe Val Ala Gln Val Ile Ser Thr Val Pro Asp Val
                       100                     105                     110
Phe Gln Ser Ser Pro Ser Ser His Ser Pro Pro Ser Thr Phe Ser Phe
```

```
              115                    120                    125
Lys Lys Lys Phe Ser Ser Gln His Phe Gly Arg Leu Arg Arg Ala Asp
         130            135                 140
His Glu Val Arg Ser Ser Arg Ser Pro
145                150
```

<210> 4169

<211> 369

<212> PRT

<213> Homo sapiens

<400> 4169

```
Met Tyr Ser Pro Ile Ile Tyr Gln Ala Leu Cys Glu His Val Gln Thr
    1               5                   10                  15
Gln Met Ser Leu Met Asn Asp Leu Thr Ser Lys Asn Ile Pro Asn Gly
                20                  25                  30
Ile Pro Ala Val Pro Cys His Ala Pro Ser His Ser Glu Ser Gln Ala
            35                  40                  45
Thr Pro His Ser Ser Tyr Gly Leu Cys Thr Ser Thr Pro Val Trp Ser
        50                  55                  60
Leu Gln Arg Pro Pro Cys Pro Pro Lys Val His Ser Glu Val Gln Thr
65                  70                  75                  80
Asp Gly Asn Ser Gln Phe Ala Ser Gln Gly Lys Thr Val Ser Ala Thr
                85                  90                  95
Cys Thr Asp Val Leu Arg Asn Ser Phe Asn Thr Ser Pro Gly Val Pro
            100                 105                 110
Cys Ser Leu Pro Lys Thr Asp Ile Ser Ala Ile Pro Thr Leu Gln Gln
        115                 120                 125
Leu Gly Leu Val Asn Gly Ile Leu Pro Gln Gln Gly Ile His Lys Glu
        130                 135                 140
Thr Asp Leu Leu Lys Cys Ile Gln Thr Tyr Leu Ser Leu Phe Arg Ser
145                 150                 155                 160
His Gly Lys Glu Pro His Leu Asp Ser Gln Thr His Arg Ser Pro Thr
                165                 170                 175
```

Gln Ser Gln Pro Ala Phe Leu Ala Thr Asn Glu Glu Ile Cys Ala Arg
                180   185   190

Glu Gln Ile Arg Glu Ala Thr Ser Glu Arg Lys Asp Leu Asn Ile His
                195   200   205

Val Arg Asp Thr Lys Thr Val Lys Asp Val Gln Lys Ala Lys Asn Val
            210   215   220

Asn Lys Thr Ala Glu Lys Val Arg Ile Ile Lys Tyr Leu Leu Gly Glu
225   230   235   240

Leu Lys Ala Leu Val Ala Glu Gln Glu Asp Ser Glu Ile Gln Arg Leu
                245   250   255

Ile Thr Glu Met Glu Ala Cys Ile Ser Val Leu Pro Thr Val Ser Gly
                260   265   270

Asn Thr Asp Ile Gln Val Glu Ile Ala Leu Ala Met Gln Pro Leu Arg
                275   280   285

Ser Glu Asn Ala Gln Leu Arg Arg Gln Leu Arg Ile Leu Asn Gln Gln
                290   295   300

Leu Arg Glu Gln Gln Lys Thr Gln Lys Pro Ser Gly Ala Val Asp Cys
305   310   315   320

Asn Leu Glu Leu Phe Ser Leu Gln Ser Leu Asn Met Ser Leu Gln Asn
                325   330   335

Gln Leu Glu Glu Ser Leu Lys Ser Gln Glu Leu Leu Gln Ser Lys Asn
                340   345   350

Glu Glu Leu Leu Lys Val Ile Glu Asn Gln Lys Asp Glu Asn Lys Lys
                355   360   365

Ile

<210> 4170

<211> 106
<212> PRT
<213> Homo sapiens

<400> 4170
Met Pro Gln Ser Arg Arg Gln Trp Asp Phe Glu Gly Gly Lys Gly Arg

```
1                    5                    10                   15
Arg Gln Ala Gly His Ala Leu Arg Gly Ala Arg Thr His Leu Leu His
                20                   25                   30
Pro His Val Phe Arg Ala Leu Ser Leu Trp Glu Ala Phe Phe Arg Thr
            35                   40                   45
Ala Leu Val Asn Trp Lys Arg Asn Pro Ser Pro Trp Trp Pro Cys Ser
        50                   55                   60
Asp Leu Asp Leu Ser Glu Val Thr Leu Pro Leu Arg Ala Leu Gln Ser
65                   70                   75                   80
Leu Leu Ala Gly Gly Gly Thr Ser Pro Ser His Ser His Phe Leu Thr
                85                   90                   95
Leu Ser Leu Cys Ile Thr Gly Ser Leu Leu
            100                  105
```

<210> 4171

<211> 337

<212> PRT

<213> Homo sapiens

<400> 4171

```
Met Asn Glu Pro Leu Asp Tyr Leu Ala Asn Ala Ser Asp Phe Pro Asp
1                    5                    10                   15
Tyr Ala Ala Ala Phe Gly Asn Cys Thr Asp Glu Asn Ile Pro Leu Lys
                20                   25                   30
Met His Tyr Leu Pro Val Ile Tyr Gly Ile Ile Phe Leu Val Gly Phe
            35                   40                   45
Pro Gly Asn Ala Val Val Ile Ser Thr Tyr Ile Phe Lys Met Arg Pro
        50                   55                   60
Trp Lys Ser Ser Thr Ile Ile Met Leu Asn Leu Ala Cys Thr Asp Leu
65                   70                   75                   80
Leu Tyr Leu Thr Ser Leu Pro Phe Leu Ile His Tyr Tyr Ala Ser Gly
                85                   90                   95
Glu Asn Trp Ile Phe Gly Asp Phe Met Cys Lys Phe Ile Arg Phe Ser
                100                  105                  110
Phe His Phe Asn Leu Tyr Ser Ser Ile Leu Phe Leu Thr Cys Phe Ser
```

```
              115                    120                    125
Ile Phe Arg Tyr Cys Val Ile Ile His Pro Met Ser Cys Phe Ser Ile
    130                    135                    140
His Lys Thr Arg Cys Ala Val Val Ala Cys Ala Val Val Trp Ile Ile
145                    150                    155                    160
Ser Leu Val Ala Val Ile Pro Met Thr Phe Leu Ile Thr Ser Thr Asn
                165                    170                    175
Arg Thr Asn Arg Ser Ala Cys Leu Asp Leu Thr Ser Ser Asp Glu Leu
                180                    185                    190
Asn Thr Ile Lys Trp Tyr Asn Leu Ile Leu Thr Ala Thr Thr Phe Cys
                195                    200                    205
Leu Pro Leu Val Ile Val Thr Leu Cys Tyr Thr Thr Ile Ile His Thr
    210                    215                    220
Leu Thr His Gly Leu Gln Thr Asp Ser Cys Leu Lys Gln Lys Ala Arg
225                    230                    235                    240
Arg Leu Thr Ile Leu Leu Leu Leu Ala Phe Tyr Val Cys Phe Leu Pro
                245                    250                    255
Phe His Ile Leu Arg Val Ile Arg Ile Glu Ser Arg Leu Leu Ser Ile
                260                    265                    270
Ser Cys Ser Ile Glu Asn Gln Ile His Glu Ala Tyr Ile Val Ser Arg
                275                    280                    285
Pro Leu Ala Ala Leu Asn Thr Phe Gly Asn Leu Leu Leu Tyr Val Val
    290                    295                    300
Val Ser Asp Asn Phe Gln Gln Ala Val Cys Ser Thr Val Arg Cys Lys
305                    310                    315                    320
Val Ser Gly Asn Leu Glu Gln Ala Lys Lys Ile Ser Tyr Ser Asn Asn
                325                    330                    335
Pro
```

<210> 4172

<211> 595

<212> PRT

<213> Homo sapiens

<400> 4172

```
Met Ser Arg His Glu Ile Gln Gly Lys Lys Met Ala Tyr Gln Lys Val
1               5                   10                  15

His Ala Asp Gln Arg Ala Pro Gly His Ser Gln Tyr Leu Asp Asn Asp
                20                  25                  30

Asp Leu Gln Ala Thr Ala Leu Asp Leu Glu Trp Asp Met Glu Lys Glu
            35                  40                  45

Leu Glu Glu Ser Gly Phe Asp Gln Phe Gln Leu Asp Ser Ala Glu Asn
        50                  55                  60

Gln Asn Leu Gly His Ser Glu Thr Ile Asp Leu Asn Leu Asp Ser Ile
65                  70                  75                  80

Gln Pro Ala Thr Ser Pro Lys Gly Arg Phe Gln Arg Leu Gln Glu Glu
                85                  90                  95

Ser Asp Tyr Ile Thr His Tyr Thr Arg Ser Ala Pro Lys Ser Asn Arg
            100                 105                 110

Cys Asn Phe Cys His Val Leu Lys Met Leu Cys Thr Ala Thr Ile Leu
        115                 120                 125

Phe Ile Phe Gly Ile Leu Ile Gly Tyr Tyr Val His Thr Asn Cys Pro
        130                 135                 140

Ser Asp Ala Pro Ser Ser Gly Thr Val Asp Pro Gln Leu Tyr Gln Glu
145                 150                 155                 160

Ile Leu Lys Thr Ile Gln Ala Glu Asp Ile Lys Lys Ser Phe Arg Asn
                165                 170                 175

Leu Val Gln Leu Tyr Lys Asn Glu Asp Asp Thr Glu Ile Ser Lys Lys
            180                 185                 190

Ile Lys Thr Gln Trp Thr Ser Leu Gly Leu Glu Asp Val Gln Phe Val
        195                 200                 205

Asn Tyr Ser Val Leu Leu Asp Leu Pro Gly Pro Ser Pro Ser Thr Val
        210                 215                 220

Thr Leu Ser Ser Ser Gly Gln Cys Phe His Pro Asn Gly Gln Pro Cys
225                 230                 235                 240

Ser Glu Glu Ala Arg Lys Asp Ser Ser Gln Asp Leu Leu Tyr Ser Tyr
                245                 250                 255

Ala Ala Tyr Ser Ala Lys Gly Thr Leu Lys Ala Glu Val Ile Asp Val
            260                 265                 270

Ser Tyr Gly Met Ala Asp Asp Leu Lys Arg Ile Arg Lys Ile Lys Asn
```

```
                275                    280                    285
Val Thr Asn Gln Ile Ala Leu Leu Lys Leu Gly Lys Leu Pro Leu Leu
        290                    295                    300
Tyr Lys Leu Ser Ser Leu Glu Lys Ala Gly Phe Gly Gly Val Leu Leu
305                    310                    315                    320
Tyr Ile Asp Pro Cys Asp Leu Pro Lys Thr Val Asn Pro Ser His Asp
                325                    330                    335
Thr Phe Met Val Ser Leu Asn Pro Gly Gly Asp Pro Ser Thr Pro Gly
                340                    345                    350
Tyr Pro Ser Val Asp Glu Ser Phe Arg Gln Ser Arg Ser Asn Leu Thr
                355                    360                    365
Ser Leu Leu Val Gln Pro Ile Ser Ala Ser Leu Val Ala Lys Leu Ile
        370                    375                    380
Ser Ser Pro Lys Ala Arg Thr Lys Asn Glu Ala Cys Ser Ser Leu Glu
385                    390                    395                    400
Leu Pro Asn Asn Glu Ile Arg Val Val Ser Met Gln Val Gln Thr Val
                405                    410                    415
Thr Lys Leu Lys Thr Val Thr Asn Val Val Gly Phe Val Met Gly Leu
                420                    425                    430
Thr Ser Pro Asp Arg Tyr Ile Ile Val Gly Ser His His His Thr Ala
                435                    440                    445
His Ser Tyr Asn Gly Gln Glu Trp Ala Ser Ser Thr Ala Ile Ile Thr
        450                    455                    460
Ala Phe Ile Arg Ala Leu Met Ser Lys Val Lys Arg Gly Trp Arg Pro
465                    470                    475                    480
Asp Arg Thr Ile Val Phe Cys Ser Trp Gly Gly Thr Ala Phe Gly Asn
                485                    490                    495
Ile Gly Ser Tyr Glu Arg Gly Glu Asp Phe Lys Lys Val Leu Gln Lys
                500                    505                    510
Asn Val Val Ala Tyr Ile Ser Leu His Ser Pro Ile Arg Gly Asn Ser
        515                    520                    525
Ser Leu Tyr Pro Val Ala Ser Pro Ser Leu Gln Gln Leu Val Val Glu
        530                    535                    540
Lys Asn Asn Phe Asn Cys Thr Arg Arg Ala Gln Cys Pro Glu Thr Asn
545                    550                    555                    560
Ile Ser Ser Ile Gln Ile Gln Gly Asp Ala Asp Tyr Phe Ile Asn His
```

```
                565                    570                    575
Leu Gly Val Pro Ile Val Gln Phe Ala Tyr Glu Asp Ile Lys Thr Leu
            580                    585                    590
Glu Ala Glu
        595
```

<210> 4173

<211> 102

<212> PRT

<213> Homo sapiens

<400> 4173

```
Met Ala Lys Ala Pro Phe Tyr His Leu Leu Phe Cys Phe Gly Ile Trp
 1               5                    10                   15
Ser Asp Ser Tyr Ser Ser Leu Gly Leu Ala Gln Trp Arg Asn Trp Cys
                20                   25                   30
Ser Tyr Cys Thr Gly Leu Cys Thr Pro Cys Asn Cys Asp Val Tyr Asp
            35                   40                   45
Cys Ser Ser Cys Phe Pro Ile Leu His Phe Gln Ser Pro Arg Ala Val
    50                   55                   60
Leu Ser Arg Thr Thr Lys Leu Pro Arg Ile Lys Pro Pro Asn Met Ala
65                   70                   75                   80
Tyr Pro Cys Ser Ser Asp Val Ile Leu Val Ala Ser Val Asn Ser Val
                85                   90                   95
Cys His Ala Val Gln Thr
            100
```

<210> 4174

<211> 112

<212> PRT

<213> Homo sapiens

<400> 4174

```
Met Ile Ile Pro Gly Lys Gly Phe Leu Val Leu Cys Asn Pro Lys Gly
```

```
1                  5                  10                 15
Arg Asn Ser Pro Met Gly Gly Arg Ile Leu Leu Gly Met Lys Lys Phe
                20                 25                 30
Leu Phe Pro Cys His Glu Cys Pro Ala Arg Glu Gln Gly Gly Ser Val
            35                 40                 45
Arg Glu Gly Leu Ser Ser Trp Arg Lys Trp Asp Ser Lys Ser Arg Met
        50                 55                 60
Leu Arg Leu Ser Gly Ser Gln Arg Gly Gly Ser Lys Cys Gly Met Trp
65                 70                 75                 80
Val Ala Leu Trp Phe Ser Gly Ser Val Val Val Pro Ser Thr Ala Asp
                85                 90                 95
Phe Met Thr Pro His Leu Ser Pro Ser His Ile Val Tyr Pro Ser Val
            100                105                110
```

<210> 4175

<211> 712

<212> PRT

<213> Homo sapiens

<400> 4175

```
Met Pro Asp Gln Asp Lys Lys Val Lys Thr Thr Glu Lys Ser Thr Asp
1                  5                  10                 15
Lys Gln Gln Glu Ile Thr Ile Arg Asp Tyr Ser Asp Leu Lys Arg Leu
                20                 25                 30
Arg Cys Leu Leu Asn Val Gln Ser Ser Lys Gln Gln Leu Pro Ala Ile
            35                 40                 45
Asn Phe Asp Ser Ala Gln Asn Ser Met Thr Lys Ser Glu Pro Ala Ile
        50                 55                 60
Arg Ala Gly Gly His Arg Ala Arg Gly Gln Trp His Glu Ser Thr Glu
65                 70                 75                 80
Ala Val Glu Leu Glu Asn Phe Ser Ile Asn Tyr Lys Asn Glu Arg Asn
                85                 90                 95
Phe Ser Lys His Pro Gln Arg Lys Leu Phe Gln Glu Ile Phe Thr Ala
                100                105                110
Leu Val Lys Asn Arg Leu Ile Ser Arg Glu Trp Val Asn Arg Ala Pro
```

```
            115                 120                 125
Ser Ile His Phe Leu Arg Val Leu Ile Cys Leu Arg Leu Leu Met Arg
    130                 135                 140
Asp Pro Cys Tyr Gln Glu Ile Leu His Ser Leu Gly Gly Ile Glu Asn
145                 150                 155                 160
Leu Ala Gln Tyr Met Glu Ile Val Ala Asn Glu Tyr Leu Gly Tyr Gly
                165                 170                 175
Glu Glu Gln His Thr Val Asp Lys Leu Val Asn Met Thr Tyr Ile Phe
                180                 185                 190
Gln Lys Leu Ala Ala Val Lys Asp Gln Arg Glu Trp Val Thr Thr Ser
        195                 200                 205
Gly Ala His Lys Thr Leu Val Asn Leu Leu Gly Ala Arg Asp Thr Asn
    210                 215                 220
Val Leu Leu Gly Ser Leu Leu Ala Leu Ala Ser Leu Ala Glu Ser Gln
225                 230                 235                 240

Glu Cys Arg Glu Lys Ile Ser Glu Leu Asn Ile Val Glu Asn Leu Leu
                245                 250                 255
Met Ile Leu His Glu Tyr Asp Leu Leu Ser Lys Arg Leu Thr Ala Glu
                260                 265                 270
Leu Leu Arg Leu Leu Cys Ala Glu Pro Gln Val Lys Glu Gln Val Lys
        275                 280                 285
Leu Tyr Glu Gly Ile Pro Val Leu Leu Ser Leu Leu His Ser Asp His
    290                 295                 300
Leu Lys Leu Leu Trp Ser Ile Val Trp Ile Leu Val Gln Val Cys Glu
305                 310                 315                 320
Asp Pro Glu Thr Ser Val Glu Ile Arg Ile Trp Gly Gly Ile Lys Gln
                325                 330                 335
Leu Leu His Ile Leu Gln Gly Asp Arg Asn Phe Val Ser Asp His Ser
                340                 345                 350
Ser Ile Gly Ser Leu Ser Ser Ala Asn Ala Ala Gly Arg Ile Gln Gln
        355                 360                 365
Leu His Leu Ser Glu Asp Leu Ser Pro Arg Glu Ile Gln Glu Asn Thr
    370                 375                 380
Phe Ser Leu Gln Ala Ala Cys Cys Ala Ala Leu Thr Glu Leu Val Leu
385                 390                 395                 400
```

Asn Asp Thr Asn Ala His Gln Val Val Gln Glu Asn Gly Val Tyr Thr
              405   410   415

Ile Ala Lys Leu Ile Leu Pro Asn Lys Gln Lys Asn Ala Ala Lys Ser
              420   425   430

Asn Leu Leu Gln Cys Tyr Ala Phe Arg Ala Leu Arg Phe Leu Phe Ser
              435   440   445

Met Glu Arg Asn Arg Pro Leu Phe Lys Arg Leu Phe Pro Thr Asp Leu
              450   455   460

Phe Glu Ile Phe Ile Asp Ile Gly His Tyr Val Arg Asp Ile Ser Ala
465   470   475   480

Tyr Glu Glu Leu Val Ser Lys Leu Asn Leu Leu Val Glu Asp Glu Leu
              485   490   495

Lys Gln Ile Ala Glu Asn Ile Glu Ser Ile Asn Gln Asn Lys Ala Pro
              500   505   510

Leu Lys Tyr Ile Gly Asn Tyr Ala Ile Leu Asp His Leu Gly Ser Gly
              515   520   525

Ala Phe Gly Cys Val Tyr Lys Val Arg Lys His Ser Gly Gln Asn Leu
              530   535   540

Leu Ala Met Lys Glu Val Asn Leu His Asn Pro Ala Phe Gly Lys Asp
545   550   555   560

Lys Lys Asp Arg Asp Ser Ser Val Arg Asn Ile Val Ser Glu Leu Thr
              565   570   575

Ile Ile Lys Glu Gln Leu Tyr His Pro Asn Ile Val Arg Tyr Tyr Lys
              580   585   590

Thr Phe Leu Glu Asn Asp Arg Leu Tyr Ile Val Met Glu Leu Ile Glu
              595   600   605

Gly Ala Pro Leu Gly Glu His Phe Ser Ser Leu Lys Glu Lys His His
              610   615   620

His Phe Thr Glu Glu Arg Leu Trp Lys Ile Phe Ile Gln Leu Cys Leu
625   630   635   640

Ala Leu Arg Tyr Leu His Lys Glu Lys Arg Ile Val His Arg Asp Leu
              645   650   655

Thr Pro Asn Asn Ile Met Leu Gly Asp Lys Asp Lys Val Thr Val Thr
              660   665   670

Asp Phe Gly Leu Ala Lys Gln Lys Gln Glu Asn Ser Lys Leu Thr Ser
              675   680   685

Val Val Gly Thr Ile Leu Tyr Ser Cys Val Gln His Leu Tyr Leu Arg
    690   695   700

Ser Pro Ala Pro Ala Leu Ala Thr
705   710

<210> 4176

<211> 117

<212> PRT

<213> Homo sapiens

<400> 4176

Met Ser Arg Leu Gly Pro Pro Ala Arg Ile Leu Pro Ser Met Pro Trp
1   5   10   15

Lys Met Thr Cys Ser Trp Leu Tyr Val Phe Pro Leu Asn Thr Asp Cys
        20   25   30

Thr Ser Glu Leu Thr Glu Ala Leu Thr Pro Ser Arg Arg Ser Pro Ala
      35   40   45

Ala Gly Trp Gly His Gly Gly Ala Val Pro His Phe Leu Arg Ala Pro
    50   55   60

Pro Pro His Gln Gly Leu Leu Pro Cys His Gly Gly Val Pro Leu Pro
65   70   75   80

Ser Ser Ser Pro Thr Gly Val Pro Ser Ser Pro Ala Thr Ser Leu Val
        85   90   95

Ser Gly Cys Pro His Pro Gly His Ser Gly Gly Glu Gly Val Gly Gly
        100   105   110

Gly Trp Glu Pro Arg
      115

<210> 4177

<211> 457

<212> PRT

<213> Homo sapiens

<400> 4177

Met Ser Asp Ala Asn Lys Ala Ala Ile Ala Ala Glu Arg Glu Ala Leu
1   5   10   15

Asn Leu Lys Leu Pro Pro Ile Val His Leu Pro Glu Asn Ile Gly Ala
            20   25   30

Asp Thr Pro Thr Gln Ser Lys Leu Leu Lys Tyr Arg Arg Ser Lys Glu
        35   40   45

Gln Gln Gln Lys Ile Asn Gln Leu Val Ile Asp Gly Ala Lys Arg Asn
        50   55   60

Leu Asp Arg Thr Leu Gly Lys Arg Thr Pro Leu Leu Pro Pro Pro Asp
65   70   75   80

Tyr Pro Gln Thr Met Thr Ser Glu Met Lys Lys Lys Gly Phe Asn Tyr
                85   90   95

Ile Tyr Met Lys Gln Cys Val Glu Ser Ser Pro Leu Val Pro Ile Gln
            100   105   110

Gln Glu Trp Leu Asp His Met Leu Arg Leu Ile Pro Glu Ser Leu Lys
            115   120   125

Glu Gly Lys Glu Arg Glu Glu Leu Leu Glu Ser Leu Ile Asn Glu Val
        130   135   140

Ser Ser Asp Phe Glu Asn Ser Met Lys Arg Tyr Leu Val Gln Ser Val
145   150   155   160

Leu Val Lys Pro Pro Val Lys Ser Leu Glu Asp Glu Gly Gly Pro Leu
                165   170   175

Pro Glu Ser Pro Val Gly Leu Asp Tyr Ser Asn Pro Trp His Ser Ser
                180   185   190

Tyr Val Gln Ala Arg Asn Gln Ile Phe Ser Asn Leu His Ile Ile His
            195   200   205

Pro Thr Met Lys Met Leu Leu Asp Leu Gly Tyr Thr Thr Phe Ala Asp
        210   215   220

Thr Val Leu Leu Asp Phe Thr Gly Ile Arg Ala Lys Gly Pro Ile Asp
225   230   235   240

Cys Glu Ser Leu Lys Thr Asp Leu Ser Ile Gln Thr Arg Asn Ala Glu
                245   250   255

Glu Lys Ile Met Asn Thr Trp Tyr Pro Lys Val Ile Asn Leu Phe Thr
            260   265   270

Lys Lys Glu Ala Leu Glu Gly Val Lys Pro Glu Lys Leu Asp Ala Phe
  275   280   285

Tyr Ser Cys Val Ser Thr Leu Met Ser Asn Gln Leu Lys Asp Leu Leu
  290   295   300

Arg Arg Thr Val Glu Gly Phe Val Lys Leu Phe Asp Pro Lys Asp Gln
305   310   315   320

Gln Arg Leu Pro Ile Phe Lys Ile Glu Leu Thr Phe Asp Asp Asp Lys
    325   330   335

Met Glu Phe Tyr Pro Thr Phe Gln Asp Leu Glu Asp Asn Val Leu Ser
    340   345   350

Leu Val Glu Arg Ile Ala Glu Ala Leu Gln Asn Val Gln Thr Ile Pro
  355   360   365

Ser Trp Leu Ser Gly Thr Ser Thr Pro Val Asn Leu Asp Thr Glu Leu
  370   375   380

Pro Glu His Val Leu His Trp Ala Val Asp Thr Leu Lys Ala Ala Val
385   390   395   400

His Arg Asn Leu Glu Gly Ala Arg Lys His Tyr Glu Thr Tyr Val Glu
    405   410   415

Lys Tyr Asn Trp Leu Leu Asp Gly Thr Ala Val Glu Asn Ile Glu Thr
    420   425   430

Phe Gln Thr Glu Asp His Thr Phe Asp Glu Tyr Thr Glu Glu Leu Asp
  435   440   445

Cys Trp Val Val Trp Glu Val Tyr Phe
  450   455

<210> 4178
<211> 190
<212> PRT
<213> Homo sapiens

<400> 4178
Met Leu Phe Tyr Leu Ser Gly Thr Tyr Tyr Ala Leu Tyr Phe Leu Ala
 1   5   10   15

Thr Leu Leu Met Ile Thr Tyr Lys Ser Gln Val Phe Ser Tyr Pro His

```
            20                  25                  30
Arg Tyr Leu Val Leu Asp Leu Ala Leu Leu Phe Leu Met Gly Ile Leu
        35                  40                  45
Glu Ala Val Arg Leu Tyr Leu Gly Thr Arg Gly Asn Leu Thr Glu Ala
        50                  55                  60
Glu Arg Pro Leu Ala Ala Ser Leu Ala Leu Thr Ala Gly Thr Ala Leu
    65                  70                  75                  80
Leu Ser Ala His Phe Leu Leu Trp Gln Ala Leu Val Leu Trp Ala Asp
                85                  90                  95
Trp Ala Leu Ser Ala Thr Leu Leu Ala Leu His Gly Leu Glu Ala Val
            100                 105                 110
Leu Gln Val Val Ala Ile Ala Ala Phe Thr Ser His Thr Ser Pro Phe
            115                 120                 125
Arg Gly Phe Gly Gly Glu Val Arg Ala Lys Ala Gly Asp Glu Thr Ala
        130                 135                 140
Gly Glu Arg Ala Ala Glu Gly His Ile Arg Ser Leu Arg Pro Leu Gln
    145                 150                 155                 160
Phe Tyr Gln Leu Leu Pro Phe Ala Arg Ser Ala Lys Gln Ile Leu Ala
                165                 170                 175
Leu Cys Phe Phe Pro Ile Pro Arg Phe Thr Ile Ser Ser Pro
            180                 185                 190
```

<210> 4179

<211> 215

<212> PRT

<213> Homo sapiens

<400> 4179

```
Met Asn Leu Ala Cys Gly Glu Asp Val Ser Thr Asn Gly Gln Leu Gly
 1               5                   10                  15
Pro Lys Glu Asp Thr Gly Ser Asn Thr Glu Thr Asn Gln Ile Leu Pro
                20                  25                  30
Arg Pro Ser Cys Tyr Gln Thr Thr Leu Val Gln Gly Trp Leu Leu Cys
        35                  40                  45
Thr Gly Gln Ser His Pro Ile Pro Thr Gln Ala Leu Cys Pro Ala Thr
```

```
              50                    55                    60
Leu Ala Ser Ser Trp Pro Ser His Gln Ala Lys Gln Gly Arg Gly Met
 65                    70                    75                    80
Gly Met Pro Thr His Pro Tyr Gln Leu Cys Arg His Arg Thr Met His
                      85                    90                    95
Ser Ser Trp Glu Glu Ser Asp Glu Leu Leu Lys Ala Gln Glu Gly Pro
                100                   105                   110
Ala Gln Trp Ser Ala Trp Gln Gly Gln Cys Phe Ser Gln Gly Arg Asp
                115                   120                   125
Gly Gly Arg Leu Thr Arg Asp Pro Gln Gly Gly Arg Cys Ile Ser Val
                130                   135                   140
Leu Phe Pro Asp Asn Lys Asp Val Ser Val Met Met Ser Glu Met Asp
145                   150                   155                   160
Val Asn Val Ile Ala Gly Thr Leu Lys Leu Tyr Phe Arg Glu Leu Pro
                      165                   170                   175
Glu Pro Leu Phe Thr Asp Glu Phe Tyr Pro Asn Phe Ala Glu Gly Ile
                180                   185                   190
Gly Glu His Trp Arg Pro Trp Pro His Gly Arg Arg Leu Leu His Val
                195                   200                   205
His Cys Cys Pro Trp Arg Leu
                210                   215
```

<210> 4180

<211> 783

<212> PRT

<213> Homo sapiens

<400> 4180

```
Met Leu Ser Asp Leu Thr Leu Gln Leu Arg Gln Arg Gln Glu Asn Thr
 1                     5                    10                    15
Ile Ile Glu Asn Pro Asp Val Pro Gln Asp Phe Gly Asn Gln Gly Ser
                 20                    25                    30
Thr Val Glu Ser Leu Cys Asp Asp Val Val Ser Val Leu Thr Val Leu
                 35                    40                    45
```

Cys Glu Lys Leu Gln Ala Ala Ile Asn Asp Ser Gln Gln Leu Gln Leu
      50   55   60

Leu Tyr Leu Glu Cys Ile Leu Ser Val Leu Ser Ser Ser Ser Ser Ser
65   70   75   80

Met His Leu His Arg Arg Phe Thr Asp Leu Ile Trp Lys Asn Leu Cys
                  85   90   95

Pro Ala Leu Ile Val Ile Leu Gly Asn Pro Ile His Asp Lys Thr Ile
              100   105   110

Thr Ser Ala His Thr Ser Ser Thr Ser Thr Ser Leu Glu Ser Asp Ser
          115   120   125

Ala Ser Pro Gly Val Ser Asp His Gly Arg Gly Ser Gly Cys Ser Cys
      130   135   140

Thr Ala Pro Ala Leu Ser Gly Pro Val Ala Arg Thr Ile Tyr Tyr Ile
145   150   155   160

Ala Ala Glu Leu Val Arg Leu Val Gly Ser Val Asp Ser Met Lys Pro
              165   170   175

Val Leu Gln Ser Leu Tyr His Arg Val Leu Leu Tyr Pro Pro Pro Gln
              180   185   190

His Arg Val Glu Ala Ile Lys Ile Met Lys Glu Ile Leu Gly Ser Pro
          195   200   205

Gln Arg Leu Cys Asp Leu Ala Gly Pro Ser Ser Thr Glu Ser Glu Ser
      210   215   220

Arg Lys Arg Ser Ile Ser Lys Arg Lys Ser His Leu Asp Leu Leu Lys
225   230   235   240

Leu Ile Met Asp Gly Met Thr Glu Ala Cys Ile Lys Gly Gly Ile Glu
              245   250   255

Ala Cys Tyr Ala Ala Val Ser Cys Val Cys Thr Leu Leu Gly Ala Leu
          260   265   270

Asp Glu Leu Ser Gln Gly Lys Gly Leu Ser Glu Gly Gln Val Gln Leu
          275   280   285

Leu Leu Leu Arg Leu Glu Glu Leu Lys Asp Gly Ala Glu Trp Ser Arg
      290   295   300

Asp Ser Met Glu Ile Asn Glu Ala Asp Phe Arg Trp Gln Arg Arg Val
305   310   315   320

Leu Ser Ser Glu His Thr Pro Trp Glu Ser Gly Asn Glu Arg Ser Leu
              325   330   335

Asp Ile Ser Ile Ser Val Thr Thr Asp Thr Gly Gln Thr Thr Leu Glu
           340   345   350

Gly Glu Leu Gly Gln Thr Thr Pro Glu Asp His Ser Gly Asn His Lys
           355   360   365

Asn Ser Leu Lys Ser Pro Ala Ile Pro Glu Gly Lys Glu Thr Leu Ser
      370   375   380

Lys Val Leu Glu Thr Glu Ala Val Asp Gln Pro Asp Val Val Gln Arg
385   390   395   400

Ser His Thr Val Pro Tyr Pro Asp Ile Thr Asn Phe Leu Ser Val Asp
                405   410   415

Cys Arg Thr Arg Ser Tyr Gly Ser Arg Tyr Ser Glu Ser Asn Phe Ser
           420   425   430

Val Asp Asp Gln Asp Leu Ser Arg Thr Glu Phe Asp Ser Cys Asp Gln
           435   440   445

Tyr Ser Met Ala Ala Glu Lys Asp Ser Gly Arg Ser Asp Val Ser Asp
      450   455   460

Ile Gly Ser Asp Asn Cys Ser Leu Ala Asp Glu Glu Gln Thr Pro Arg
465   470   475   480

Asp Cys Leu Gly His Arg Ser Leu Arg Thr Ala Ala Leu Ser Leu Lys
                485   490   495

Leu Leu Lys Asn Gln Glu Ala Asp Gln His Ser Ala Arg Leu Phe Ile
           500   505   510

Gln Ser Leu Glu Gly Leu Leu Pro Arg Leu Leu Ser Leu Ser Asn Val
           515   520   525

Glu Glu Val Asp Thr Ala Leu Gln Asn Phe Ala Ser Thr Phe Cys Ser
           530   535   540

Gly Met Met His Ser Pro Gly Phe Asp Gly Asn Ser Ser Leu Ser Phe
545   550   555   560

Gln Met Leu Met Asn Ala Asp Ser Leu Tyr Thr Ala Ala His Cys Ala
                565   570   575

Leu Leu Leu Asn Leu Lys Leu Ser His Gly Asp Tyr Tyr Arg Lys Arg
           580   585   590

Pro Thr Leu Ala Pro Gly Val Met Lys Asp Phe Met Lys Gln Val Gln
           595   600   605

Thr Ser Gly Val Leu Met Val Phe Ser Gln Ala Trp Ile Glu Glu Leu
      610   615   620

```
Tyr His Gln Val Leu Asp Arg Asn Met Leu Gly Glu Ala Gly Tyr Trp
625                 630                 635                 640
Gly Ser Pro Glu Asp Asn Ser Leu Pro Leu Ile Thr Met Leu Thr Asp
                    645                 650                 655
Ile Asp Gly Leu Glu Ser Ser Ala Ile Gly Gly Gln Leu Met Ala Ser
                    660                 665                 670
Ala Ala Thr Glu Ser Pro Phe Ala Gln Ser Arg Arg Ile Asp Asp Ser
                    675                 680                 685
Thr Val Ala Gly Val Ala Phe Ala Arg Tyr Ile Leu Val Gly Cys Trp
                690                 695                 700
Lys Asn Leu Ile Asp Thr Leu Ser Thr Pro Leu Thr Gly Arg Met Ala
705                 710                 715                 720
Gly Ser Ser Lys Glu Leu Ala Phe Ile Leu Gly Ala Glu Gly Ile Lys
                    725                 730                 735
Glu Gln Asn Gln Lys Glu Arg Asp Ala Ile Cys Met Ser Leu Asp Gly
                    740                 745                 750
Leu Arg Lys Ala Ala Arg Leu Ser Cys Ala Leu Gly Val Ala Ala Asn
                755                 760                 765
Cys Ala Ser Ala Leu Ala Gln Met Ala Ala Ala Ser Cys Val Gln
                770                 775                 780
```

<210> 4181

<211> 115

<212> PRT

<213> Homo sapiens

<400> 4181

```
Met Thr Asp Arg Asp Ala Gln Trp Arg Pro Leu Ser Arg Pro Leu Gly
1                 5                   10                  15
Thr Arg Pro His Ala Pro Leu Ala Pro Ala Cys Val Arg Arg Pro Trp
                20                  25                  30
Ala Gly Lys Ala Pro Gly Ser Val Ser Ser Val Ser Ser Gln Leu Pro
                35                  40                  45
Ala Leu Gln Pro Pro Arg Leu Leu Val Ile Phe Cys Phe Lys Val Ala
                50                  55                  60
```

Phe Cys Val Phe Phe Ser His Phe Ser Ser Ser Ser Ser Ser Cys His
65   70   75   80

Ile Tyr Phe Pro Pro Asn Thr Cys Pro Leu Asn Ser Ile Asp Ala Ile
                    85   90   95

Leu Ser Leu Lys Lys Cys Tyr Ser His Thr Asp Ser Val Trp Ser Leu
                100   105   110

Gln Leu Asp
          115

<210> 4182

<211> 497

<212> PRT

<213> Homo sapiens

<400> 4182

Met Glu Ser Gly Leu Ser Trp Val Phe Leu Val Ala Leu Leu Arg Gly
    1   5   10   15

Val Gln Cys Gln Phe Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln
                20   25   30

Ser Gly Arg Ser Leu Arg Leu Ser Cys Ala Ala Tyr Gly Phe Met Leu
                35   40   45

Arg Thr Asn Leu Met Tyr Trp Val Arg Gln Ala Pro Gly Lys Gly Leu
        50   55   60

Glu Trp Leu Ala Val Ser Ser Tyr Asp Gly His Thr Asp His Tyr Ala
65   70   75   80

Asp Ser Val Lys Gly Arg Phe Thr Val Ser Arg Asp Asn Ser Met Asn
                85   90   95

Arg Leu Tyr Leu Gln Met Arg Asn Leu Arg Pro Asp Asp Thr Ala Met
                100   105   110

Tyr His Cys Ala Arg Val Gly Tyr Asp Asp Asn Thr Val Arg Asp Leu
                115   120   125

Tyr Tyr Met Asp Val Trp Gly Lys Gly Thr Thr Val Thr Val Ser Ser
        130   135   140

Ala Ser Pro Thr Ser Pro Lys Val Phe Pro Leu Ser Leu Cys Ser Thr
145   150   155   160

Gln Pro Asp Gly Asn Val Val Ile Ala Cys Leu Val Gln Gly Phe Phe
                165   170   175

Pro Gln Glu Pro Leu Ser Val Thr Trp Ser Glu Ser Gly Gln Gly Val
                180   185   190

Thr Ala Arg·Asn Phe Pro Pro Ser Gln Asp Ala Ser Gly Asp Leu Tyr
                195   200   205

Thr Thr Ser Ser Gln Leu Thr Leu Pro Ala Thr Gln Cys Leu Ala Gly
        210   215   220

Lys Ser Val Thr Cys His Val Lys His Tyr Thr Asn Pro Ser Gln Asp
225   230   235   240

Val Thr Val Pro Cys Pro Val Pro Ser Thr Pro Pro Thr Pro Ser Pro
                245   250   255

Ser Thr Pro Pro Thr Pro Ser Pro Ser Cys Cys His Pro Arg Leu Ser
                260   265   270

Leu His Arg Pro Ala Leu Glu Asp Leu Leu Leu Gly Ser Glu Ala Asn
                275   280   285

Leu Thr Cys Thr Leu Thr Gly Leu Arg Asp Ala Ser Gly Val Thr Phe
        290   295   300

Thr Trp Thr Pro Ser Ser Gly Lys Ser Ala Val Gln Gly Pro Pro Asp
305   310   315   320

Arg Asp Leu Cys Gly Cys Tyr Ser Val Ser Ser Val Leu Pro Gly Cys
                325   330   335

Ala Glu Pro Trp Asn His Gly Lys Thr Phe Thr Cys Thr Ala Ala Tyr
                340   345   350

Pro Glu Ser Lys Thr Pro Leu Thr Ala Thr Leu Ser Lys Ser Gly Asn
                355   360   365

Thr Phe Arg Pro Glu Val His Leu Leu Pro Pro Pro Ser Glu Glu Leu
        370   375   380

Ala Leu Asn Glu Leu Val Thr Leu Thr Cys Leu Ala Arg Gly Phe Ser
385   390   395   400

Pro Lys Asp Val Leu Val Arg Trp Leu Gln Gly Ser Gln Glu Leu Pro
                405   410   415

Arg Glu Lys Tyr Leu Thr Trp Ala Ser Arg Gln Glu Pro Ser Gln Gly
                420   425   430

Thr Thr Thr Phe Ala Val Thr Ser Ile Leu Arg Val Ala Ala Glu Asp
        435   440   445

Trp Lys Lys Gly Asp Thr Phe Ser Cys Met Val Gly His Glu Ala Leu
    450   455   460

Pro Leu Ala Phe Thr Gln Lys Thr Ile Asp Arg Leu Ala Gly Lys Pro
465   470   475   480

Thr His Val Asn Val Ser Val Val Met Ala Glu Val Asp Gly Thr Cys
           485   490   495

Tyr

<210> 4183

<211> 568

<212> PRT

<213> Homo sapiens

<400> 4183

Met Glu His Leu Trp Phe Phe Leu Leu Leu Leu Val Ala Pro Pro Arg
  1   5   10   15

Arg Val Leu Ser Gln Val Arg Leu Lys Glu Trp Gly Ala Lys Thr Trp
        20   25   30

Lys Pro Ser Glu Thr Leu Ser Leu Val Cys Arg Val Asp Gly Gly Pro
      35   40   45

Phe Asn Leu Tyr Ser Trp Ser Trp Ile Arg Gln Gly Ser Gly Lys Gly
    50   55   60

Leu Glu Trp Leu Gly Glu Ile Thr Pro Gly Gly Pro Thr His Ser Asn
65   70   75   80

Pro Ser Leu Ala Ser Arg Val Val Leu Ser Val Asp Thr Ser Lys Asn
        85   90   95

His Val Ser Leu Lys Leu Leu Ser Leu Thr Val Ala Asp Thr Ala Val
        100   105   110

Tyr Phe Cys Ala Ala Arg Asn Pro Ser Ala Gly Ala Ala Glu Tyr Trp
        115   120   125

Gly Pro Gly Ser Pro Val Ile Val Ser Ser Ala Pro Thr Lys Ala Pro
        130   135   140

Asp Val Phe Pro Ile Ile Ser Gly Cys Arg His Pro Lys Asp Asn Ser
145   150   155   160

Pro Val Val Leu Ala Cys Leu Ile Thr Gly Tyr His Pro Thr Ser Val
              165   170   175

Thr Val Thr Trp Tyr Met Gly Thr Gln Ser Gln Pro Gln Arg Thr Phe
              180   185   190

Pro Glu Ile Gln Arg Arg Asp Ser Tyr Tyr Met Thr Ser Ser Gln Leu
          195   200   205

Ser Thr Pro Leu Gln Gln Trp Arg Gln Gly Glu Tyr Lys Cys Val Val
          210   215   220

Gln His Thr Ala Ser Lys Ser Lys Lys Glu Ile Phe Arg Trp Pro Glu
225   230   235   240

Ser Pro Lys Ala Gln Ala Ser Ser Val Pro Thr Ala Gln Pro Gln Ala
              245   250   255

Glu Gly Ser Leu Ala Lys Ala Thr Thr Ala Pro Ala Thr Thr Arg Asn
              260   265   270

Thr Gly Arg Gly Gly Glu Glu Lys Lys Lys Glu Lys Glu Lys Glu Glu
              275   280   285

Gln Glu Glu Arg Glu Thr Lys Thr Pro Glu Cys Pro Ser His Thr Gln
          290   295   300

Pro Leu Gly Val Tyr Leu Leu Thr Pro Ala Val Gln Asp Leu Trp Leu
305   310   315   320

Arg Asp Lys Ala Thr Phe Thr Cys Phe Val Val Gly Ser Asp Leu Lys
              325   330   335

Asp Ala His Leu Thr Trp Glu Val Ala Gly Lys Val Pro Thr Gly Gly
              340   345   350

Val Glu Glu Gly Leu Leu Glu Arg His Ser Asn Gly Ser Gln Ser Gln
              355   360   365

His Ser Arg Leu Thr Leu Pro Arg Ser Leu Trp Asn Ala Gly Thr Ser
          370   375   380

Val Thr Cys Thr Leu Asn His Pro Ser Leu Pro Pro Gln Arg Leu Met
385   390   395   400

Ala Leu Arg Glu Pro Ala Ala Gln Ala Pro Val Lys Leu Ser Leu Asn
              405   410   415

Leu Leu Ala Ser Ser Asp Pro Pro Glu Ala Ala Ser Trp Leu Leu Cys
              420   425   430

Glu Val Ser Gly Phe Ser Pro Pro Asn Ile Leu Leu Met Trp Leu Glu
              435   440   445

Asp Gln Arg Glu Val Asn Thr Ser Gly Phe Ala Pro Ala Arg Pro Pro
    450   455   460
Pro Gln Pro Gly Ser Thr Thr Phe Trp Ala Trp Ser Val Leu Arg Val
465   470   475   480
Pro Ala Pro Pro Ser Pro Gln Pro Ala Thr Tyr Thr Cys Val Val Ser
            485   490   495
His Glu Asp Ser Arg Thr Leu Leu Asn Ala Ser Arg Ser Leu Glu Val
            500   505   510
Ser Tyr Leu Ala Met Thr Pro Leu Ile Pro Gln Ser Lys Asp Glu Asn
        515   520   525
Ser Asp Asp Tyr Ser Thr Phe Asp Asp Val Gly Ser Leu Trp Thr Thr
    530   535   540
Leu Ser Thr Phe Val Ala Leu Phe Ile Leu Thr Leu Leu Tyr Ser Gly
545   550   555   560
Ile Val Thr Phe Ile Lys Val Lys
            565

<210> 4184
<211> 478
<212> PRT
<213> Homo sapiens

<400> 4184
Met Asp Trp Thr Trp Thr Ile Leu Phe Leu Val Ala Gly Ala Thr Gly
1   5   10   15
Val Lys Ser Gln Ala Gln Leu Leu Gln Ser Gly Pro Glu Ala Glu Arg
            20   25   30
Pro Gly Ala Ser Val Arg Val Ser Cys Arg Ala Ser Gly Tyr Asp Phe
        35   40   45
Arg Thr Phe Ala Val Thr Trp Val Arg Gln Ala Pro Gly Gln Gly Leu
    50   55   60
Glu Trp Met Gly Trp Val Asn Thr Asp Gln Gly Asp Thr His Tyr Ala
65   70   75   80
Arg Arg Phe Gln Gly Arg Val Ser Met Thr Thr Asp Thr Ser Thr Ser
            85   90   95

Thr Ala Tyr Leu Glu Leu Arg Arg Leu Thr Phe Asp Asp Thr Ala Val
     100   105   110

Tyr Phe Cys Ala Arg Leu Leu Leu Pro Asn Gly Arg Asn Trp Ala Gln
     115   120   125

Trp Lys Asn Tyr Tyr Ala Phe Asp Val Trp Gly His Gly Thr Thr Val
     130   135   140

Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala
145   150   155   160

Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly Cys Leu
     165   170   175

Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly
     180   185   190

Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser
     195   200   205

Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu
     210   215   220

Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn Thr
225   230   235   240

Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys Asp Lys Thr His Thr
     245   250   255

Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe
     260   265   270

Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro
     275   280   285

Glu Val Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val
     290   295   300

Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr
305   310   315   320

Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val
     325   330   335

Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys
     340   345   350

Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser
     355   360   365

Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro

```
        370                    375                    380
Ser Arg Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val
385                    390                    395                    400
Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly
                   405                    410                    415
Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp
                   420                    425                    430
Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp
                   435                    440                    445
Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His
              450                    455                    460
Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
465                    470                    475
```

<210> 4185

<211> 548

<212> PRT

<213> Homo sapiens

<400> 4185

```
Met Ser Ala Gly Asp Ala Val Cys Thr Gly Trp Leu Val Lys Ser Pro
  1              5                   10                   15
Pro Glu Arg Lys Leu Gln Arg Tyr Ala Trp Arg Lys Arg Trp Phe Val
                   20                   25                   30
Leu Arg Arg Gly Arg Met Ser Gly Asn Pro Asp Val Leu Glu Tyr Tyr
              35                   40                   45
Arg Asn Lys His Ser Ser Lys Pro Ile Arg Val Ile Asp Leu Ser Glu
         50                   55                   60
Cys Ala Val Trp Lys His Val Gly Pro Ser Phe Val Arg Lys Glu Phe
65                   70                   75                   80
Gln Asn Asn Phe Val Phe Ile Val Lys Thr Thr Ser Arg Thr Phe Tyr
                   85                   90                   95
Leu Val Ala Lys Thr Glu Gln Glu Met Gln Val Trp Val His Ser Ile
                   100                  105                  110
Ser Gln Val Cys Asn Leu Gly His Leu Glu Asp Gly Ala Ala Asp Ser
```

```
                115                     120                     125
Met Glu Ser Leu Ser Tyr Thr Pro Ser Ser Leu Gln Pro Ser Ser Ala
        130                     135                     140
Ser Ser Leu Leu Thr Ala His Ala Ala Ser Ser Ser Leu Pro Arg Asp
145                     150                     155                     160
Asp Pro Asn Thr Asn Ala Val Ala Thr Glu Glu Thr Arg Ser Glu Ser
                    165                     170                     175
Glu Leu Leu Phe Leu Pro Asp Tyr Leu Val Leu Ser Asn Cys Glu Thr
                180                     185                     190
Gly Arg Leu His His Thr Ser Leu Pro Thr Arg Cys Asp Ser Trp Ser
            195                     200                     205
Asn Ser Asp Arg Ser Leu Glu Gln Ala Ser Phe Asp Asp Val Phe Val
        210                     215                     220
Asp Cys Leu Gln Pro Leu Pro Ser Ser His Leu Val His Pro Ser Cys
225                     230                     235                     240
His Gly Ser Gly Ala Gln Glu Val Pro Ser Ser Arg Pro Gln Ala Ala
                    245                     250                     255
Leu Ile Trp Ser Arg Glu Ile Asn Gly Pro Pro Arg Asp His Leu Ser
                260                     265                     270
Ser Ser Pro Leu Leu Glu Ser Ser Leu Ser Ser Thr Ile Gln Val Asp
            275                     280                     285
Lys Asn Gln Gly Ser Leu Pro Cys Gly Ala Lys Glu Leu Asp Ile Met
        290                     295                     300
Ser Asn Thr Pro Pro Pro Arg Pro Pro Lys Pro Ser His Leu Ser Glu
305                     310                     315                     320
Arg Arg Gln Glu Glu Trp Ser Thr His Ser Gly Ser Lys Lys Pro Glu
                    325                     330                     335
Cys Thr Leu Val Pro Arg Arg Ile Ser Leu Ser Gly Leu Asp Asn Met
                340                     345                     350
Arg Thr Trp Lys Ala Asp Val Glu Gly Gln Ser Leu Arg His Arg Asp
            355                     360                     365
Lys Arg Leu Ser Leu Asn Leu Pro Cys Arg Phe Ser Pro Met Tyr Pro
        370                     375                     380
Thr Ala Ser Ala Ser Ile Glu Asp Ser Tyr Val Pro Met Ser Pro Gln
385                     390                     395                     400
Ala Gly Ala Ser Gly Leu Gly Pro His Cys Ser Pro Asp Asp Tyr Ile
```

```
                      405                    410                    415
Pro Met Asn Ser Gly Ser Ile Ser Ser Pro Leu Pro Glu Leu Pro Ala
                420                    425                    430
Asn Leu Glu Pro Pro Val Asn Arg Asp Leu Lys Pro Gln Arg Lys
            435                    440                    445
Ser Arg Pro Pro Pro Leu Asp Leu Arg Asn Leu Ser Ile Ile Arg Glu
        450                    455                    460
His Ala Ser Leu Thr Arg Thr Arg Thr Val Pro Cys Ser Arg Thr Ser
465                    470                    475                    480
Phe Leu Ser Pro Glu Arg Asn Gly Ile Asn Ser Ala Arg Phe Phe Ala
                485                    490                    495
Asn Pro Val Ser Arg Glu Asp Glu Glu Ser Tyr Ile Glu Met Lys Leu
                500                    505                    510
Leu Leu Ser Glu Glu Gln Arg Val Asp Tyr Val Gln Val Asp Glu Gln
            515                    520                    525
Lys Thr Gln Ala Leu Gln Ser Thr Lys Gln Glu Trp Thr Asp Glu Arg
        530                    535                    540
Gln Ser Lys Val
545
```

```
Met Asn Ile Val Phe Ser Arg Asp Ser Gln Val Arg Val Met Glu Asn
 1                  5                    10                    15
Thr Val Ala Asn Thr Glu Lys Tyr Phe Gly Gln Phe Cys Ser Leu Leu
                20                    25                    30
Ala Ala Tyr Thr Arg Lys Thr Ala Arg Leu Arg Asp Lys Ala Asp Gln
            35                    40                    45
Leu Val Lys Gln Leu Ile Asp Phe Ala Asn Ser Glu Asn Pro Glu Leu
        50                    55                    60
```

Arg Ala Thr Met Arg Gly Phe Ala Glu Asp Leu Ala Lys Val Gln Asp
65   70   75   80

Tyr Arg Gln Ala Gln Val Glu Arg Leu Glu Thr Lys Val Val Asn Pro
                85   90   95

Leu Lys Leu Tyr Gly Ala Gln Ile Lys Gln Thr Arg Ala Glu Ile Lys
                100   105   110

Lys Phe Lys His Val Gln Asn His Glu Ile Lys Gln Leu Glu Lys Leu
            115   120   125

Glu Lys Leu Arg Gln Lys Ser Pro Ser Asp Gln Gln Met Ile Ser Gln
        130   135   140

Ala Glu Thr Arg Val Gln Arg Ala Ala Val Asp Ser Ser Arg Thr Thr
145   150   155   160

Leu Gln Leu Glu Glu Thr Val Asp Gly Phe Gln Arg Gln Lys Leu Lys
                165   170   175

Asp Leu Gln Lys Phe Phe Cys Asp Phe Val Thr Ile Glu Met Val Phe
                180   185   190

His Ala Lys Ala Val Glu Val Tyr Ser Ser Ala Phe Gln Thr Leu Glu
            195   200   205

Lys Tyr Asp Leu Glu Arg Asp Leu Leu Asp Phe Arg Ala Lys Met Gln
        210   215   220

Gly Val Tyr Gly His Tyr Asp Thr Arg Leu Leu Ala Asn Thr Ser Pro
225   230   235   240

Pro Pro Ser Val Leu Gln Ser Leu Ala Ser Gln Gly Thr Leu Gln Val
                245   250   255

Gln Leu Ser Arg Ala Asn Glu Asp Pro Glu His Pro His Ala Asn His
                260   265   270

Gly Arg Phe Ser Leu Cys Glu Trp Val Val Lys Gly Gln Pro Ala His
            275   280   285

Cys Val Cys Gly Gln Gly Gly His Leu Met Leu Pro Gly His Ser Leu
    290   295   300

<210> 4187

<211> 156

<212> PRT

<213> Homo sapiens

<400> 4187

Met Asn Ala Ala Ser Pro Leu Gly Ala Trp Val Arg Val Trp Arg His
1   5   10   15

Gln Ser Trp Pro Val Cys Asp Ser Pro Gly Ser Ser Thr Ser Ser Leu
                20   25   30

Ala Pro Gly Pro Glu Pro Gly Pro Gln Pro Ala Leu His Val Gln Ala
            35   40   45

Gln Val Asn Asn Ser Asn Asn Lys Lys Gly Thr Phe Thr Asp Asp Leu
        50   55   60

His Lys Leu Val Asp Glu Trp Thr Ser Lys Thr Val Gly Ala Ala Gln
65   70   75   80

Leu Lys Pro Thr Leu Asn Gln Leu Lys Gln Thr Gln Lys Leu Gln Asp
                85   90   95

Met Glu Ala Gln Ala Gly Trp Ala Ala Pro Gly Glu Ala Arg Ala Met
            100   105   110

Thr Ala Pro Arg Ala Gly Val Gly Met Pro Arg Leu Pro Pro Ala Pro
            115   120   125

Gly Pro Leu Ser Thr Thr Val Ile Pro Gly Ala Ala Pro Thr Leu Ser
        130   135   140

Val Pro Thr Pro Asp Pro Glu Ser Glu Lys Pro Asp
145   150   155

<210> 4188

<211> 121
<212> PRT
<213> Homo sapiens

<400> 4188

Met Pro Lys Glu Leu Glu Ser Gly Ser His Glu Ser Pro Asp Asp Ser
1   5   10   15

·Ser Ser Thr Ala Gln Thr Leu Glu Leu Leu Cys His Leu Asp Asn Thr
                20   25   30

Ala His Gly Asn Met Ala Cys Val Val Trp Glu Pro Met Gly Asp Gly
       35   40   45

Lys Lys Ile Ile Ser Leu Ala Asp Asn His Ile Leu Leu Trp Asp Leu
      50   55   60

Gln Glu Ser Ser Ser Gln Ala Val Leu Ala Ser Ser Ala Ser Leu Glu
65   70   75   80

Gly Lys Gly Gln Leu Lys Phe Thr Ser Gly Arg Trp Ser Pro His His
             85   90   95

Asn Cys Thr Gln Val Ala Thr Ala Asn Asp Thr Thr Leu Arg Gly Trp
           100   105   110

Asp Thr Arg Ser Met Arg Ser Thr Ala
        115   120

<210> 4189
<211> 230
<212> PRT
<213> Homo sapiens

<400> 4189
Met Ala Phe Val Lys Ser Gly Trp Leu Leu Arg Gln Ser Thr Ile Leu
 1   5   10   15

Lys Arg Trp Lys Lys Asn Trp Phe Asp Leu Trp Ser Asp Gly His Leu
           20   25   30

Ile Tyr Tyr Asp Asp Gln Thr Arg Gln Asn Ile Glu Asp Lys Val His
           35   40   45

Met Pro Met Asp Cys Ile Asn Ile Arg Thr Gly Gln Glu Cys Arg Asp
     50   55   60

Thr Gln Pro Pro Asp Gly Lys Ser Lys Asp Cys Met Leu Gln Ile Val
65   70   75   80

Cys Arg Asp Gly Lys Thr Ile Ser Leu Cys Ala Glu Ser Thr Asp Asp
           85   90   95

Cys Leu Ala Trp Lys Phe Thr Leu Gln Asp Ser Arg Thr Asn Thr Ala
           100   105   110

Tyr Val Gly Ser Ala Val Met Thr Asp Glu Thr Ser Val Val Ser Ser
           115   120   125

Pro Pro Pro Tyr Thr Ala Tyr Ala Ala Pro Ala Pro Glu Val Gly Arg
   130   135   140

Thr Leu Ser Leu Gln Gln Ala Tyr Gly Tyr Gly Pro Tyr Gly Gly Ala
145   150   155   160

Tyr Pro Pro Gly Thr Gln Val Val Tyr Ala Ala Asn Gly Gln Ala Tyr
        165   170   175

Ala Val Pro Tyr Gln Tyr Pro Tyr Ala Gly Leu Tyr Gly Gln Gln Pro
        180   185   190

Ala Asn Gln Val Ile Ile Arg Glu Arg Tyr Arg Asp Asn Gly Ser Asp
   195   200   205

Leu Ala Leu Gly Met Leu Ala Gly Ala Ala Thr Gly Met Ala Leu Gly
   210   215   220

Ser Leu Phe Trp Val Phe
225   230

<210> 4190

<211> 120

<212> PRT

<213> Homo sapiens

<400> 4190

Met Lys Ser Ala Val Ile Thr Pro Cys Ser His Phe Phe His Ala Gly
  1   5   10   15

Cys Leu Lys Lys Trp Leu Tyr Val Gln Glu Thr Cys Pro Leu Cys His
        20   25   30

Cys His Leu Lys Asn Ser Ser Gln Leu Pro Gly Leu Gly Thr Glu Pro
     35   40   45

Val Leu Gln Pro His Ala Gly Ala Glu Gln Asn Val Met Phe Gln Glu
   50   55   60

Gly Thr Glu Pro Pro Gly Gln Glu His Thr Pro Gly Thr Arg Ile Gln
65   70   75   80

Glu Gly Ser Arg Asp Asn Asn Glu Tyr Ile Ala Arg Arg Pro Asp Asn
        85   90   95

Gln Glu Gly Ala Phe Asp Pro Lys Glu Tyr Pro His Ser Ala Lys Asp
        100   105   110

Glu Ala His Pro Val Glu Ser Ala
     115   120

<210> 4191

<211> 163

<212> PRT

<213> Homo sapiens

<400> 4191

Met Arg Val Pro Pro Ala Gly Thr Trp Ala Leu Arg Pro Ile Trp Thr
1   5   10   15

Glu Met Gly Thr Pro Leu Arg Gly Ser Gln Ala Pro Gly Arg Ile Val
      20   25   30

Leu Leu Leu Leu Val Ile Thr Pro Gln Trp Arg Trp Ile Pro Ser Lys
      35   40   45

Thr Pro Asn Val Ala Pro Arg Ser Asn Gln Arg Cys Asn Pro Gly Gly
    50   55   60

Tyr Leu Ser Gly Gly Val Ser Leu Cys Ala Ser His Ser Gln Pro Ala
65   70   75   80

Ala Leu Pro Asn Leu Gly Arg Leu Gln Lys Lys Leu Leu Gln Thr Arg
      85   90   95

Cys Lys Gly Arg Arg Met Cys Pro Lys Ala Gly Asp Gln Thr Gly Gly
      100   105   110

Ala Phe Cys Met Cys Asp Val Ser Gly Gly Gly Gly Glu Cys Val Ser
      115   120   125

Gly Ser Gly Gly Gly Gly Glu Ser Gly Arg Lys Thr Gly Thr Thr Ser
    130   135   140

Ala Met Lys Asp Pro Arg Val Leu Lys Cys Lys Leu Arg Val Thr Asn
145   150   155   160

Asp Leu His

<210> 4192

<211> 109

<212> PRT

<213> Homo sapiens

<400> 4192

```
Met Gly Phe His His Phe Gly Gln Ala Gly Leu Gln Leu Val Thr Ser
 1               5                  10                  15
Gly Asp Leu Ser Ala Ser Ala Ser Gln Ser Ala Gly Ile Thr Gly Val
            20                  25                  30
Ser His Cys Thr Gln Pro Trp Trp Val Phe Cys Arg Glu Gln Phe Gln
        35                  40                  45
Lys Asp Phe Trp Trp Gln Pro Leu Ser Leu Trp Leu Thr Asp Met Gly
        50                  55                  60
Lys Ile Ile Gln Lys Thr Tyr Leu Arg Gln Asp Val Glu Asn Ser Thr
 65                  70                  75                  80
Val Ile Ser Leu Tyr Leu Asn Thr Thr Ser Asn Asn Val Tyr Asp Arg
                85                  90                  95
Val Asp His Phe His Glu Gly Ile Thr Ser Leu Ala Val
                100                 105
```

<210> 4193

<211> 976

<212> PRT

<213> Homo sapiens

<400> 4193

```
Met Asn Thr Gln Lys Gly Ser Leu Thr Ile Asn Val His Arg Gly Ser
 1               5                  10                  15
Leu Ala Met Ser Ile Gln Arg Gly Ser Leu Val Pro Arg Asp Met Asp
            20                  25                  30
Ser Ser Gly Arg Asp Met Gln Leu Arg Val Ile Pro Ala Glu Val Lys
        35                  40                  45
Phe Leu Asp Thr Met Ala Gly Arg Val Tyr Arg Leu Pro Ile Thr Val
        50                  55                  60
His Asn Ile Cys Arg Trp Asn Gln Lys Ile Arg Phe Lys Glu Pro Val
 65                  70                  75                  80
```

Lys Pro Gln Phe Lys Leu Met Leu Thr Ser Leu Asp Lys Glu Leu Ala
                85   90   95

Ser Gly Leu Gln Met Thr Ala Met Val Glu Tyr His Pro Asp Lys Asp
                100   105   110

Glu Asp Thr Phe Asp Arg Leu Leu Ile Ser Ile Glu Asn Lys Thr Thr
            115   120   125

Glu Ile Pro Leu Ile Gly Leu Ile Pro Ser Cys Gln Leu Glu Ile Glu
            130   135   140

Ser Val Val Asn Phe Gly Thr Leu Val Ala Asn Ser Lys Val Tyr Ser
145   150   155   160

Lys Glu Ile Thr Ile Thr Asn His Gly Lys Ala Pro Gly Ile Phe Lys
                165   170   175

Ala Glu Tyr His Gly Gln Leu Pro Ile Leu Ile Phe Pro Thr Ser Gly
                180   185   190

Ile Val Asp Ala Lys Ser Ser Met Val Ile Lys Val Asp Phe Cys Ala
                195   200   205

Asp Gln Pro Arg Ile Val Asp Glu Glu Ala Ile Val Ile Leu Gln Gly
            210   215   220

Gln Pro Glu Met Leu Leu Ser Ile Lys Ala His Met Val Glu Gln Ile
225   230   235   240

Ile Glu Leu Leu Ser Met Ser Ser Asp Arg Arg Leu Glu Cys Ile His
                245   250   255

Phe Gly Pro Val Phe Phe Gly Ser Ser Lys Ile Lys His Ala Arg Val
                260   265   270

Tyr Asn Asn Ser Pro Glu Pro Ile Asn Trp Val Ala Ile Ile Gln Asp
                275   280   285

Asp Ala Val Gly Glu Glu Leu Gly Thr Asp Ile Gln Gln Arg Thr Asp
            290   295   300

Ile Ala Leu Asn Asn Leu Thr Tyr Ile Arg Lys Ile Lys Asn Ile Asp
305   310   315   320

Thr Thr Ile Ile Ile Ser Cys Leu Pro Asn Glu Gly Thr Leu Gln Pro
                325   330   335

Tyr Gln Lys Thr Val Ile Thr Phe Cys Phe Thr Pro Lys Leu Met Ala
                340   345   350

Val Gly Lys Lys Asp Ile Gly Pro Ser Tyr Arg Gln Asp Tyr Ala Leu
            355   360   365

Phe Leu Arg Phe Glu Ser Val Gly Ser Lys Asp Gly Phe Leu Arg Asp
    370   375   380

Asp Asp Tyr Lys Thr Ile Lys Ser Glu Arg Phe Gln Lys Val Glu Leu
385   390   395   400

Ala Leu Thr Gly Thr Gly Leu Pro Val Leu Leu Gln Phe Asp Pro Gly
           405   410   415

Pro Val Leu Asn Phe Lys Pro Cys Phe Met Gly Glu Arg Ser Glu Ile
           420   425   430

Gln Cys Ile Ile Lys Asn Gln Cys Glu Leu Leu Pro Val Thr Tyr His
           435   440   445

Phe Lys Lys Thr Ala Asn Phe Glu Ile Asp Pro Glu Lys Gly Lys Ile
    450   455   460

Thr Gly Gly Gly Met Val Asp Val Met Cys Ser Phe Val Pro His Gln
465   470   475   480

Leu Gly Val Phe Lys Val Lys Gln Met Ile Glu Ile Ile Gly Leu Val
           485   490   495

Ala Glu Glu Asp Leu Gln Ser Leu Ser Val Lys Ser Phe His His Val
           500   505   510

Tyr Leu Ala Phe Asn Ser Ile Cys Lys Thr Ser Thr Lys Lys Val Val
           515   520   525

Met Lys Phe Asp Pro Gly Ile Leu Pro Ser Ile Arg Asn Pro Thr Gly
    530   535   540

Lys Phe Val Val Lys Asp Leu Ala Lys Arg Lys Asn Tyr Ala Pro Val
545   550   555   560

Ala Met Leu Gln Ser Ala Met Thr Arg Thr His Asn His Arg Ser Cys
           565   570   575

Glu Glu Pro Val Lys Asp Met Leu Leu Ala Phe Pro Asn Asp Arg Ala
           580   585   590

Ala Thr Ile Arg Ser Lys Asp His His Lys His Phe Arg Pro Ile Phe
           595   600   605

Thr Lys Val Pro Arg Phe Asn Tyr Val Asn His Asp Phe Ala Tyr Thr
           610   615   620

Thr Phe Glu Lys Gln Gln Lys Lys Leu His Glu Asn Tyr Tyr Ala Met
625   630   635   640

Tyr Leu Lys Tyr Leu Arg Ser Val Arg Leu Gln Lys Lys Gln Ala Glu

```
                    645                   650                   655
Arg Glu Arg Met Tyr Ser Tyr Asp Asp Thr Asp Ile Gly Leu Glu Pro
                660                   665                   670
Gly Ser Gly Leu Lys Ser Pro Ser Leu Ser Glu Ala Glu Ile Glu Glu
                675                   680                   685
Glu Leu Ser Ser Ala Ala Asn Ser Ile Arg Ala Asn Arg Leu Leu Thr
            690                   695                   700
Thr Arg Gly Ile Ala Ser Gln Glu Glu Glu Ser Val Arg Arg Lys Val
705                   710                   715                   720
Leu Lys Gly Leu Lys Ser Glu Pro Ser Thr Pro Gln Glu Lys His Asp
                    725                   730                   735
Cys Ser Leu Met Leu Thr Pro Lys Gln Ile His Gln Val Ile Val Gly
                740                   745                   750
Pro Ser Val Leu Asn Phe Gly Asn Ile Cys Val Asn Ser Pro Asn Thr
                755                   760                   765
His Leu Leu His Val Ile Asn Met Leu Pro Met His Val Leu Leu Gln
            770                   775                   780
Leu Asp Thr Asp Leu Glu Glu Leu Gln Lys Thr Asn Gln Phe Ser Tyr
785                   790                   795                   800
Val Ile Leu Pro Thr Ser Ser Thr Tyr Ile Ser Met Val Phe Asp Ser
                    805                   810                   815
Pro Thr Ile Gly Lys Phe Trp Lys Ser Phe Thr Phe Thr Val Asn Asn
                820                   825                   830
Val Pro Ser Gly His Ile Leu Val Val Ala Val Val Gln Pro Val Thr
                835                   840                   845
Leu Glu Leu Ser Ser Asn Glu Leu Val Leu Arg Pro Arg Gly Phe Phe
            850                   855                   860
Met Lys Thr Cys Phe Arg Gly Thr Val Arg Leu Tyr Asn Arg Gln Asn
865                   870                   875                   880
Cys Cys Ala Gln Phe Gln Trp Gln Pro Val Asn Thr Gly Arg Gly Ile
                    885                   890                   895
Ala Phe Ser Ile Cys Pro Ser Lys Gly Thr Val Glu Ala Tyr Ser Ser
                900                   905                   910
Leu Glu Cys Glu Val Thr Trp Gln Gln Gly Phe Ser Ser Pro Glu Glu
                915                   920                   925
Gly Glu Phe Ile Leu His Val Phe Gln Gly Asn Ala Leu Lys Leu Lys
```

```
            930                    935                    940
Cys Val Ala His Val Ile Ile Phe Leu Glu His Gly Phe Cys Phe Glu
945                    950                    955                    960
Gly Tyr Glu Leu Val Gly Tyr Thr Leu Val Tyr Ile Val Thr Tyr Ile
                   965                    970                    975
```

<210> 4194

<211> 137

<212> PRT

<213> Homo sapiens

<400> 4194

```
Met Ser Thr His His Gln Asn Pro Ala Asn Gly Pro Pro Leu Pro Pro
 1                    5                    10                   15
Ser Pro Asp Ala Glu Met Val Met Gly Ser Trp Arg Val Gly Ser Glu
                   20                   25                   30
Met Lys Gly Thr Pro Gln Trp Ala Ala Gly Pro Ile Phe Pro Lys Pro
            35                   40                   45
Cys His Tyr Leu Cys Glu Gly Gly Gln Val Ala Glu Gly Ser Gly Cys
            50                   55                   60
Arg Leu Leu Tyr Pro Leu Cys Leu Lys His Pro Pro His Arg Ala Leu
65                   70                   75                   80
Val Phe Thr Arg Phe Val Leu Asp Ser Leu Asn Gly Asn Arg Ile Pro
                   85                   90                   95
Trp Leu Arg Ala Lys Thr Thr Thr Tyr Gln Cys Pro Cys Pro Phe Gln
            100                  105                  110
Leu Thr Leu Ser Ser Leu Arg Ser Ser Leu Ser Leu Trp Lys Gly His
            115                  120                  125
Pro Ser Gln Gly Arg Asn Ala Trp Ser
            130                  135
```

<210> 4195

<211> 173

<212> PRT

<213> Homo sapiens

<400> 4195

Met Lys Ser Arg Phe Val Asp Ser Gly Glu Met Ser Glu Ser Phe Pro
 1   5   10   15

Tyr Arg Thr Lys Ala Leu Phe Ala Phe Glu Glu Ile Asp Gly Val Asp
            20   25   30

Val Cys Phe Phe Gly Met His Val Gln Glu Tyr Gly Ser Asp Cys Pro
        35   40   45

Pro Pro Asn Thr Arg Tyr Val Thr Gly His Ile Trp Ala Cys Pro Pro
        50   55   60

Ser Glu Gly Asp Asp Tyr Ile Phe His Cys His Pro Pro Asp Gln Lys
 65   70   75   80

Ile Pro Lys Pro Lys Arg Leu Gln Glu Trp Tyr Lys Lys Met Leu Asp
                85   90   95

Lys Ala Phe Ala Glu Arg Ile Ile His Asp Tyr Lys Asp Ile Phe Lys
            100   105   110

Gln Ala Thr Glu Asp Arg Leu Thr Ser Ala Lys Glu Leu Pro Tyr Phe
            115   120   125

Glu Gly Asp Phe Trp Pro Asn Val Leu Glu Glu Ser Ile Lys Glu Leu
        130   135   140

Glu Gln Glu Glu Glu Glu Arg Lys Lys Glu Glu Ser Thr Ala Ala Ser
145   150   155   160

Glu Thr Thr Glu Gly Ser Gln Gly Asp Ser Lys Asn Ala
                165   170

<210> 4196
<211> 181
<212> PRT
<213> Homo sapiens

<400> 4196

Met Pro Leu Ala Leu Leu Gln Met Arg Pro Pro Lys Met Ser Pro Asp
 1   5   10   15

Val Thr Thr Cys Pro Leu Gly Gly Lys Ser Ala Pro Val Glu Ser Thr

```
                20                      25                      30
Gly Ser Phe Leu His Ser Pro Asp Leu Ala Ala Cys Thr Gly His Phe
            35                      40                      45
Ser Glu Val Phe Gln Cys Thr Leu Cys Pro Gly Tyr Leu Gly His Ser
            50                      55                      60
Thr Leu Ala Gln Arg Gly Trp Leu Thr Cys Leu Arg Arg Cys Phe Leu
 65                      70                      75                      80
Gly Asp Ala Val Ala Ser Phe Leu Ser Val Leu Val Ile Phe Leu Ser
                85                      90                      95
Ser Leu Pro Pro Tyr Ile Pro His Asp Arg Cys Val Tyr Val His Thr
            100                     105                     110
Ser Ala Ser Leu His Ser Ala Pro Cys Gln Val Ser Cys Gln Ser Val
            115                     120                     125
Pro Leu Pro Ser Gly Ser Ala Thr Ser Cys Thr Asp Ser Thr Thr Ala
    130                     135                     140
His Thr Cys Val Cys Pro Ala Val Asp Pro Pro Pro Lys Ala Ala Ser
145                     150                     155                     160
Ala Asp Ser Arg Glu Pro Ser Thr Leu Lys Ser Gly Gln Ala Gly Ile
                165                     170                     175
Ala Thr Cys Leu Ser
            180
```

<210> 4197

<211> 1358

<212> PRT

<213> Homo sapiens

<400> 4197

```
Met Gln Asp Ser Lys Gly Arg Leu His Ala Leu Thr Ser Val Ser Arg
 1               5                       10                      15
Glu Gln Ile Val Gly Gly Asp Val Gln Gly Tyr Arg Trp Met Phe Glu
                20                      25                      30
Thr Gln Pro Leu Asp Gln Leu Gly Arg Ser Pro Ser Thr Ile Asp Val
            35                      40                      45
Val Arg Gly Ile Thr Arg Gln Glu Val Val Ala Gly Asp Val Gly Thr
```

```
                50                      55                      60
Ala Arg Trp Leu Phe Glu Thr Gln Pro Leu Glu Met Ile His Gln Arg
 65                      70                      75                      80
Glu Gln Gln Glu Arg Gln Lys Glu Glu Gly Lys Ser Gln Gly Asp Pro
                        85                      90                      95
Gln Pro Glu Ala Pro Pro Lys Gly Asp Val Gln Thr Ile Arg Trp Leu
                       100                     105                     110
Phe Glu Thr Cys Pro Met Ser Glu Leu Ala Glu Lys Gln Gly Ser Glu
                       115                     120                     125
Val Thr Asp Pro Thr Ala Lys Ala Glu Ala Gln Ser Cys Thr Trp Met
                       130                     135                     140
Phe Lys Pro Gln Pro Val Asp Arg Pro Val·Gly Ser Arg Glu Gln His
145                     150                     155                     160
Leu Gln Val Ser Gln Val Pro Ala Gly Glu Arg Gln Thr Asp Arg His
                       165                     170                     175
Val Phe Glu Thr Glu Pro Leu Gln Ala Ser Gly Arg Pro Cys Gly Arg
                       180                     185                     190
Arg Pro Val Arg Tyr Cys Ser Arg Val Glu Ile Pro Ser Gly Gln Val
                       195                     200                     205
Ser Arg Gln Lys Glu Val Phe Gln Ala Leu Glu Ala Gly Lys Lys Glu
                       210                     215                     220
Glu Gln Glu Pro Arg Val Ile Ala Gly Ser Ile Pro Ala Gly Ser Val
225                     230                     235                     240
His Lys Phe Thr Trp Leu Phe Glu Asn Cys Pro Met Gly Ser Leu Ala
                       245                     250                     255
Ala Glu Ser Ile Gln Gly Gly Asn Leu Leu Glu Glu Gln Pro Met Ser
                       260                     265                     270
Pro Ser Gly Asn Arg Met Gln Glu Ser Gln Glu Thr Ala Ala Glu Gly
                       275                     280                     285
Thr Leu Arg Thr Leu His Ala Thr Pro Gly Ile Leu His His Gly Gly
                       290                     295                     300
Ile Leu Met Glu Ala Arg Gly Pro Gly Glu Leu Cys Leu Ala Lys Tyr
305                     310                     315                     320
Val Leu Ser Gly Thr Gly Gln Gly His Pro Tyr Ile Arg Lys Glu Glu
                       325                     330                     335
Leu Val Ser Gly Glu Leu Pro Arg Ile Ile Cys Gln Val Leu Arg Arg
```

```
              340                    345                    350
Pro Asp Val Asp Gln Gln Gly Leu Leu Val Gln Glu Asp Pro Thr Gly
            355                    360                    365
Gln Leu Gln Leu Lys Pro Leu Arg Leu Pro Thr Pro Gly Ser Ser Gly
        370                    375                    380
Asn Ile Glu Asp Met Asp Pro Glu Leu Gln Gln Leu Leu Ala Cys Gly
385                    390                    395                    400
Leu Gly Thr Ser Val Ala Arg Thr Gly Leu Val Met Gln Glu Thr Glu
                    405                    410                    415
Gln Gly Leu Val Ala Leu Thr Ala Tyr Ser Leu Gln Pro Arg Leu Thr
                420                    425                    430
Ser Lys Ala Ser Glu Arg Ser Ser Val Gln Leu Leu Ala Ser Cys Ile
            435                    440                    445
Asp Lys Gly Asp Leu Ser Gly Leu His Ser Leu Arg Trp Glu Pro Pro
        450                    455                    460
Ala Asp Pro Ser Pro Val Pro Ala Ser Glu Gly Ala Gln Ser Leu His
465                    470                    475                    480
Pro Thr Glu Ser Ile Ile His Val Pro Pro Leu Asp Pro Ser Met Gly
                    485                    490                    495
Met Gly His Leu Arg Ala Ser Gly Ala Thr Pro Cys Pro Pro Gln Ala
                500                    505                    510
Ile Gly Lys Ala Val Pro Leu Ala Gly Glu Ala Ala Ala Pro Ala Gln
            515                    520                    525
Leu Gln Asn Thr Glu Lys Gln Glu Asp Ser His Ser Gly Gln Lys Gly
        530                    535                    540
Met Ala Val Leu Gly Lys Ser Glu Gly Ala Thr Thr Thr Pro Pro Gly
545                    550                    555                    560
Pro Gly Ala Pro Asp Leu Leu Ala Ala Met Gln Ser Leu Arg Met Ala
                565                    570                    575
Thr Ala Glu Ala Gln Ser Leu His Gln Gln Val Leu Asn Lys His Lys
                580                    585                    590
Gln Gly Pro Thr Pro Thr Ala Thr Ser Asn Pro Ile Gln Asp Gly Leu
            595                    600                    605
Arg Lys Ala Gly Ala Thr Gln Ser Asn Ile Arg Pro Gly Gly Gly Ser
        610                    615                    620
Asp Pro Arg Ile Pro Ala Ala Pro Arg Lys Val Ser Arg Glu Glu Gln
```

```
625                    630                    635                    640
Ala Leu Pro Arg Gly Leu Pro Gly Gly Trp Val Thr Ile Gln Asp Gly
                   645                    650                    655
Ile Tyr Thr Ala His Pro Val Arg Thr Phe Asp Pro Pro Gly Gly Val


                   660                    665                    670
Gln Leu Ser Gln Arg Glu Pro Gln Ser Arg His Arg Glu Thr Ala Leu
                   675                    680                    685
Ser Val Gln Ala Pro Arg Pro Leu Gln Gly Gly Pro Gly Gln Ser Thr
              690                    695                    700
Gly Pro Gly Arg Glu Glu Pro Gly Gly Cys Thr Gln Met Ala Trp Gly
705                    710                    715                    720
Pro Pro Gly Lys Ala Met Ala Glu Val Cys Pro Gly Gly Leu Gln Ala
                   725                    730                    735
Ala Glu Thr Thr Leu Lys Thr Ala Pro Leu Gly Arg His Ile Leu Ala
                   740                    745                    750
Ser Gly Pro Gln Ala Ala Gly Ala Ser Pro His Pro His Asn Ala Phe
              755                    760                    765
Val Pro Pro Pro Pro Thr Leu Pro Ala Ala Val Thr Gly Pro Asp Phe
         770                    775                    780
Pro Ala Gly Ala His Arg Ala Glu Asp Ser Ile Gln Gln Ala Ser Glu
785                    790                    795                    800
Pro Leu Lys Asp Pro Leu Leu His Ser His Ser Ser Pro Ala Gly Gln
                   805                    810                    815
Arg Thr Pro Gly Gly Ser Gln Thr Lys Thr Pro Lys Leu Asp Pro Thr
              820                    825                    830
Met Pro Pro Lys Lys Lys Pro Gln Leu Pro Pro Lys Pro Ala His Leu
              835                    840                    845
Thr Gln Ser His Pro Pro Gln Arg Leu Pro Lys Pro Leu Pro Leu Ser
         850                    855                    860
Pro Ser Phe Ser Ser Glu Val Gly Gln Arg Glu His Gln Arg Gly Glu
865                    870                    875                    880
Arg Asp Thr Ala Ile Pro Gln Pro Ala Lys Val Pro Thr Thr Val Asp
                   885                    890                    895
Gln Gly His Ile Pro Leu Ala Arg Cys Pro Ser Gly His Ser Gln Pro
              900                    905                    910
```

Ser Leu Gln His Gly Leu Ser Thr Thr Ala Pro Arg Pro Thr Lys Asn
       915   920   925

Gln Ala Thr Gly Ser Asn Ala Gln Ser Ser Glu Pro Pro Lys Leu Asn
      930   935   940

Ala Leu Asn His Asp Pro Thr Ser Pro Gln Trp Gly Pro Gly Pro Ser
945   950   955   960

Gly Glu Gln Pro Met Glu Gly Ser His Gln Gly Ala Pro Glu Ser Pro
        965   970   975

Asp Ser Leu Gln Arg Asn Gln Lys Glu Leu Gln Gly Leu Leu Asn Gln
        980   985   990

Val Gln Ala Leu Glu Lys Glu Ala Ala Ser Ser Val Asp Val Gln Ala
       995   1000   1005

Leu Arg Arg Leu Phe Glu Ala Val Pro Gln Leu Gly Gly Ala Ala Pro
    1010   1015   1020

Gln Ala Pro Ala Ala His Gln Lys Pro Glu Ala Ser Val Glu Gln Ala
1025   1030   1035   1040

Phe Gly Glu Leu Thr Arg Val Ser Thr Glu Val Ala Gln Leu Lys Glu
        1045   1050   1055

Gln Thr Leu Ala Arg Leu Leu Asp Ile Glu Glu Ala Val His Lys Ala
        1060   1065   1070

Leu Ser Ser Met Ser Ser Leu Gln Pro Glu Ala Ser Ala Arg Gly His
    1075   1080   1085

Phe Gln Gly Pro Pro Lys Asp His Ser Ala His Lys Ile Ser Val Thr
    1090   1095   1100

Val Ser Ser Ser Ala Arg Pro Ser Gly Ser Gly Gln Glu Val Gly Gly
1105   1110   1115   1120

Gln Thr Ala Val Lys Asn Gln Ala Lys Val Glu Cys His Thr Glu Ala
        1125   1130   1135

Gln Ser Gln Val Lys Ile Arg Asn His Thr Glu Ala Arg Gly His Thr
        1140   1145   1150

Ala Ser Thr Ala Pro Ser Thr Arg Arg Gln Glu Thr Ser Arg Glu Tyr
      1155   1160   1165

Leu Cys Pro Pro Arg Val Leu Pro Ser Ser Arg Asp Ser Pro Ser Ser
    1170   1175   1180

Pro Thr Phe Ile Ser Ile Gln Ser Ala Thr Arg Lys Pro Leu Glu Thr
1185   1190   1195   1200

Pro Ser Phe Lys Gly Asn Pro Asp Val Ser Val Lys Ser Thr Gln Leu
           1205   1210   1215

Ala Gln Asp Ile Gly Gln Ala Leu Leu His Gln Lys Gly Val Gln Asp
         1220   1225   1230

Lys Thr Gly Lys Lys Asp Ile Thr Gln Cys Ser Val Gln Pro Glu Pro
        1235   1240   1245

Ala Pro Pro Ser Ala Ser Pro Leu Pro Arg Gly Trp Gln Lys Ser Val
      1250   1255   1260

Leu Glu Leu Gln Thr Gly Pro Gly Ser Ser Gln His Tyr Gly Ala Met
1265   1270   1275   1280

Arg Thr Val Thr Glu Gln Tyr Glu Glu Val Asp Gln Phe Gly Asn Thr
          1285   1290   1295

Val Leu Met Ser Ser Thr Thr Val Thr Glu Gln Ala Glu Pro Pro Arg
         1300   1305   1310

Asn Pro Gly Ser His Leu Gly Leu His Ala Ser Pro Leu Leu Arg Gln
        1315   1320   1325

Phe Leu His Ser Pro Ala Gly Phe Ser Ser Asp Leu Thr Glu Ala Glu
      1330   1335   1340

Thr Val Gln Val Ser Cys Ser Tyr Ser Gln Pro Ala Ala Gln
1345   1350   1355

<210> 4198

<211> 331

<212> PRT

<213> Homo sapiens

<400> 4198

Met Ala Glu Gly Gly Gly Pro Glu Pro Gly Glu Gln Glu Arg Arg Ser
 1   5   10   15

Ser Gly Pro Arg Pro Pro Ser Ala Arg Asp Leu Gln Leu Ala Leu Ala
         20   25   30

Glu Leu Tyr Glu Asp Glu Val Lys Cys Lys Ser Ser Lys Ser Asn Arg
       35   40   45

Pro Lys Ala Thr Val Phe Lys Ser Pro Arg Thr Pro Pro Gln Arg Phe
      50   55   60

Tyr Ser Ser Glu His Glu Tyr Ser Gly Leu Asn Ile Val Arg Pro Ser
65   70   75   80

Thr Gly Lys Ile Val Asn Glu Leu Phe Lys Glu Ala Arg Glu His Gly
                85   90   95

Ala Val Pro Leu Asn Glu Ala Thr Arg Ala Ser Gly Asp Asp Lys Ser
                100   105   110

Lys Ser Phe Thr Gly Gly Gly Tyr Arg Leu Gly Ser Ser Phe Cys Lys
                115   120   125

Arg Ser Glu Tyr Ile Tyr Gly Glu Asn Gln Leu Gln Asp Val Gln Ile
        130   135   140

Leu Leu Lys Leu Trp Ser Asn Gly Phe Ser Leu Asp Asp Gly Glu Leu
145   150   155   160

Arg Pro Tyr Asn Glu Pro Thr Asn Ala Gln Phe Leu Glu Ser Val Lys
                165   170   175

Arg Gly Glu Ile Pro Leu Glu Leu Gln Arg Leu Val His Gly Gly Gln
                180   185   190

Val Asn Leu Asp Met Glu Asp His Gln Asp Gln Glu Tyr Ile Lys Pro
        195   200   205

Arg Leu Arg Phe Lys Ala Phe Ser Gly Glu Gly Gln Lys Leu Gly Ser
        210   215   220

Leu Thr Pro Glu Ile Val Ser Thr Pro Ser Ser Pro Glu Glu Glu Asp
225   230   235   240

Lys Ser Ile Leu Asn Ala Val Val Leu Ile Asp Asp Ser Val Pro Thr
                245   250   255

Thr Lys Ile Gln Ile Arg Leu Ala Asp Gly Ser Arg Leu Ile Gln Arg
                260   265   270

Phe Asn Ser Thr His Arg Ile Leu Asp Val Arg Asn Phe Ile Val Gln
        275   280   285

Ser Arg Pro Glu Phe Ala Ala Leu Asp Phe Ile Leu Val Thr Ser Phe
        290   295   300

Pro Asn Lys Glu Leu Thr Asp Glu Ser Leu Thr Leu Leu Glu Ala Asp
305   310   315   320

Ile Leu Asn Thr Val Leu Leu Gln Gln Leu Lys
                325   330

<210> 4199
<211> 106
<212> PRT
<213> Homo sapiens

<400> 4199

```
Met Thr Phe Ser Leu Ala Arg Ile Lys Arg Gly Gly Cys Phe Leu Ala
 1               5                   10          .        15
Gly Phe Arg Asn Leu Phe Lys Trp Phe His Cys Pro Phe Ile His Pro
            20                  25                  30
Ser Thr His Pro Thr Ile Gln Pro Ala Ile His Pro Leu Phe Ile Gln
        35                  40                  45
Gln Thr Phe Ser Cys Thr Arg Glu Leu Lys Gly Glu Gly Ser Gly Pro
        50                  55                  60
Trp Ala Pro Pro Ala Cys Arg Glu Thr Pro Leu Cys Gly Arg Arg Gly
65                  70                  75                  80
Gly Leu Cys Pro Leu Tyr Pro Pro Ser Val Pro Val Val Phe Arg Pro
                85                  90                  95
Val Thr Cys Leu Asn Leu Ser Val Cys Leu
                100                 105
```

<210> 4200
<211> 527
<212> PRT
<213> Homo sapiens

<400> 4200

```
Met Val Tyr Ile Val Arg Gln Phe Leu Leu Tyr Asn Val Ser Gly Ser

 1               5                   10                  15
Val Tyr Leu Asp Gln Leu Ile Val Leu Leu Thr Ala Lys Phe Ser Ile
            20                  25                  30
Leu Arg Ile Ala Gly Ser Arg Val His His Ser Pro Phe Ser Gly His
            35                  40                  45
Leu Asp Gly Cys Ser Phe Leu Ser Leu Gln His Ser Leu His Thr Ser
```

```
        50                    55                    60
Leu Asp Met Ser Arg His Glu Asn Val Phe Leu Gly Leu Thr Leu Ser
 65                    70                    75                    80
Ser Lys Ser Ala Gly Leu Lys Gly Phe Gln Leu Ala Phe Val Pro Gly
                      85                    90                    95
Leu Leu Gln Gly Thr Gly Gly Tyr Leu Asp Gly Pro Leu Pro Thr Pro
                     100                   105                   110
Val Asp Asn Pro Arg Val Gly Leu Glu Val Gly Leu Arg Leu Ser Leu
                     115                   120                   125
Pro Pro Leu Pro Pro Cys Pro Gly Val His Ile Gln Ser Ser Gln Thr
                     130                   135                   140
Val Glu Ser Ser Gly Leu Tyr Thr Leu Gln Ser Ile Leu Lys Ala Gln
145                   150                   155                   160
Leu Val Lys Glu Asp Lys Asp Ala Gln Phe Tyr Cys Glu Leu Asn Tyr
                     165                   170                   175
Arg Leu Pro Ser Gly Asn His Met Lys Glu Ser Arg Glu Val Thr Val
                     180                   185                   190
Pro Val Phe Tyr Pro Thr Glu Lys Val Trp Leu Glu Val Glu Pro Val
                     195                   200                   205
Gly Met Leu Lys Glu Gly Asp Arg Val Glu Ile Arg Cys Leu Ala Asp
                     210                   215                   220
Gly Asn Pro Pro Pro His Phe Ser Ile Ser Lys Gln Asn Pro Ser Thr
225                   230                   235                   240
Arg Glu Ala Glu Glu Glu Thr Thr Asn Asp Asn Gly Val Leu Val Leu
                     245                   250                   255
Glu Pro Ala Arg Lys Glu His Ser Gly Arg Tyr Glu Cys Gln Gly Leu
                     260                   265                   270
Asp Leu Asp Thr Met Ile Ser Leu Leu Ser Glu Pro Gln Glu Leu Leu
                     275                   280                   285
Val Asn Tyr Val Ser Asp Val Arg Val Ser Pro Ala Ala Pro Glu Arg
                     290                   295                   300
Gln Glu Gly Ser Ser Leu Thr Leu Thr Cys Glu Ala Glu Ser Ser Gln
305                   310                   315                   320
Asp Leu Glu Phe Gln Trp Leu Arg Glu Glu Thr Gly Gln Val Leu Glu
                     325                   330                   335
Arg Gly Pro Val Leu Gln Leu His Asp Leu Lys Arg Glu Ala Gly Gly
```

```
                340                      345                      350
Gly Tyr Arg Cys Val Ala Ser Val Pro Ser Ile Pro Gly Leu Asn Arg
            355                      360                      365
Thr Gln Leu Val Asn Val Ala Ile Phe Gly Pro Pro Trp Met Ala Phe
        370                      375                      380
Lys Glu Arg Lys Val Trp Val Lys Glu Asn Met Val Leu Asn Leu Ser
385                      390                      395                      400
Cys Glu Ala Ser Gly His Pro Arg Pro Thr Ile Ser Trp Asn Val Asn
                405                      410                      415
Gly Thr Ala Ser Glu Gln Asp Gln Asp Pro Gln Arg Val Leu Ser Thr
            420                      425                      430
Leu Asn Val Leu Val Thr Pro Glu Leu Leu Glu Thr Gly Val Glu Cys
            435                      440                      445
Thr Ala Ser Asn Asp Leu Gly Lys Asn Thr Ser Ile Leu Phe Leu Glu
        450                      455                      460
Leu Val Asn Leu Thr Thr Leu Thr Pro Asp Ser Asn Thr Thr Thr Gly
465                      470                      475                      480
Leu Ser Thr Ser Thr Ala Ser Pro His Thr Arg Ala Asn Ser Thr Ser
                485                      490                      495
Thr Gly Lys Pro Gly Leu Ala Arg Glu Gln Gly Cys Ala Arg Ala Ser
            500                      505                      510
Phe Leu Pro Cys Pro Ser Pro Glu Ser Pro Val Gln Lys Gly Glu
        515                      520                      525
```

<210> 4201

<211> 146

<212> PRT

<213> Homo sapiens

<400> 4201

```
Met Thr Thr Pro Pro Thr Ser Leu Pro Glu Pro Phe Ser Gly Asp Pro
 1               5                      10                      15
Gly Arg Leu Ala Gly Phe Leu Met Gln Met Asp Arg Phe Met Ile Phe
            20                      25                      30
Gln Ala Ser Arg Phe Pro Gly Glu Ala Glu Arg Val Ala Phe Leu Val
```

```
            35                      40                      45
Ser Arg Leu Thr Gly Glu Ala Glu Lys Trp Ala Ile Pro His Met Gln
        50                      55                      60
Pro Asp Ser Pro Leu Arg Asn Asn Tyr Gln Gly Phe Leu Ala Glu Leu
    65                      70                      75                      80
Arg Arg Thr Tyr Lys Ser Pro Leu Arg His Ala Arg Arg Ala Gln Ile
                    85                      90                      95
Arg Lys Thr Ser Ala Ser Asn Arg Ala Val Arg Glu Arg Gln Met Leu
                    100                     105                     110
Cys Arg Gln Leu Ala Ser Ala Gly Thr Gly Pro Cys Pro Val His Pro
                    115                     120                     125
Ala Ser Asn Gly Thr Ser Pro Ala Pro Ala Leu Pro Ala Arg Ala Arg
                    130                     135                     140
Asn Leu
145
```

<210> 4202

<211> 117

<212> PRT

<213> Homo sapiens

<400> 4202

```
Met Ile Pro Trp Arg Arg Arg Gly Val Leu Val Phe Gly Ile Phe Ser
    1                       5                       10                      15
Leu Leu Val Leu Val Phe Pro His Leu Pro Gly Phe Ile Cys Leu Trp
                    20                      25                      30
Ser Leu Met Leu Val Thr Phe Gly Trp Gly Phe Cys Val Asp Ile Val
                    35                      40                      45
Phe Val Asp Val Asp Ala Ile Pro Phe Cys Phe Leu Val Phe Leu Leu
        50                      55                      60
Thr Gly Arg Leu Leu Ser Cys Arg Pro Ala Gly Val Cys Trp Arg Ser
    65                      70                      75                      80
Thr Pro Asp Pro Val Cys Leu Ser Ile Thr Ser Arg His Cys Arg Thr
                    85                      90                      95
Ala Lys Ile Ala Ala Cys Ser Phe Leu Trp Lys Phe Arg Pro Arg Gly
```

```
                    100                 105                   110
Ala Pro Ala Arg Cys
                    115


<210> 4203
<211> 369
<212> PRT
<213> Homo sapiens


<400> 4203
Met Ile Gln Gly Arg Leu Phe Asn Met Leu Ser Ala Val Arg Glu Met
 1               5                   10                  15
Asp Lys Glu Ser Ile Leu Arg Lys Ile Gly Gln Ala Lys Gln Ser Ile
                20                  25                  30
Ala Gln Glu Ala Asn Phe Phe Lys Phe Phe Leu Arg Arg Ile Ser Gln
            35                  40                  45
Asp Asp Tyr Thr Ser Arg Phe Ser Val Ser Pro Lys Glu Val Leu Pro
        50                  55                  60
Phe Ala Phe Pro Asp Cys Ser Pro Pro Gln Asp Ser Asn Glu Leu Ala
65                  70                  75                  80
Pro Asp Gly Leu Gly Leu Val Pro Ile Lys Ser Ser Glu Val Gln Ile
                85                  90                  95
Lys Gln Ser Tyr Ser Phe Phe Asn Leu Gln Val Pro Gln Leu Tyr Lys
                100                 105                 110
Ile Lys Arg Tyr Gln Pro Phe Ser Val His Lys Ser Ser Thr Ser Tyr
            115                 ·120                125
Arg Pro Gln Lys Leu Ala Arg Ala Leu Lys Gln Gly Ala Glu Asp Glu
        130                 135                 140
Val Thr Thr Ile Thr Ala Leu Pro Lys Gln Asp Ser Thr Thr Gln Leu
145                 150                 155                 160
Ser Gly Lys Thr Ser Ile Leu Ser Met Lys Pro Pro Glu Ala Leu Ala
                165                 170                 175
Met Ser Leu Asp Tyr Asp Pro Leu Tyr Val Phe Asn Pro Asn Pro Gly
                180                 185                 190
Leu Phe Ala Val Met His Pro Leu Thr Tyr Ala Glu Thr Leu Ile Asp
```

```
                195                  200                  205
Tyr His Leu Cys Ser His Pro Lys Tyr Lys Phe Thr Lys Glu Ser Arg
        210                  215                  220
His Gly Ser Ser Ile Pro Val Thr Gln Lys Gln Phe Leu His His Thr
225                  230                  235                  240
Asp Ile Ile Pro Gly Ile Met His Trp Lys Ser Phe Gln Ser Leu Val
                245                  250                  255
Leu Ser Ser Leu Pro Asp Pro Ser Lys Met Glu Thr Thr Lys Ser Cys
            260                  265                  270
Asp Ser Phe Asn Ser Phe Met Leu Pro Ile Asp Val Pro Ala Ile Leu
            275                  280                  285
Asp Ala Leu Pro Glu Glu Asp Arg Leu Glu Thr Val Glu Arg Glu Leu
        290                  295                  300
Cys Glu Gln Asn Val Glu Val Met Leu Thr Pro Glu Met Ile Lys Val
305                  310                  315                  320
Glu Phe Pro Met Leu Asn Tyr Lys Asp Ile Arg Lys Glu Lys Glu Val
                325                  330                  335
Lys Asp Gln Ala Gln Pro Ala Glu Lys Ala Gly Glu Lys Leu Leu Glu
            340                  345                  350
Glu Met Arg Asn Leu Arg Gly Lys Ala Leu Asn Thr Tyr Leu Ile Leu
            355                  360                  365
Glu
```

```
Met Pro Lys Ile Ile Leu Cys Pro Asn His Lys Phe Ser Gly Leu Pro
 1               5                  10                  15
Arg Asn His Leu Val Cys Ile Glu Cys Phe Ser Lys Cys Arg Asp Ala
            20                  25                  30
Gln Val Val Gly Ile Gln Tyr Ile Glu Leu Ser Arg Cys Thr Phe Leu
```

```
                35                      40                      45
Glu Tyr Asn Leu Asn Gly His Phe Pro Thr Cys Ala Ile Pro Leu Phe
        50                      55                      60
Ser Pro His Ser Ile His Ile Ser Gln Thr Thr Leu Ile Ile Val Phe
65                      70                      75                      80
Ile Ile Asp Leu Arg Lys Lys Lys Phe Glu Arg Val Glu Lys Thr Cys
                85                      90                      95
Ile Leu Ser Pro Trp Ile Val Asn His
                100                     105
```

<210> 4205

<211> 610

<212> PRT

<213> Homo sapiens

<400> 4205

```
Met Ala Glu Leu Ser Glu Pro Glu Gly Pro Val Asp Trp Lys Glu Arg
1                   5                       10                      15
Cys Val Ala Leu Glu Ser Gln Leu Met Lys Phe Arg Val Gln Ala Ser
                20                      25                      30
Lys Ile Arg Glu Leu Leu Ala Glu Lys Met Gln Gln Leu Glu Arg Gln
            35                      40                      45
Val Ile Asp Ala Glu Arg Gln Ala Glu Lys Ala Phe Gln Gln Val Gln
        50                      55                      60
Val Met Glu Asp Lys Leu Lys Ala Ala Asn Ile Gln Thr Ser Glu Ser
65                      70                      75                      80
Glu Thr Arg Leu Tyr Asn Lys Cys Gln Asp Leu Glu Ser Leu Ile Gln
                85                      90                      95
Glu Lys Asp Asp Val Ile Gln Asn Leu Glu Leu Gln Leu Glu Glu Gln
                100                     105                     110
Lys Gln Ile Arg Ile Gln Glu Ala Lys Ile Ile Glu Glu Lys Ala Ala
            115                     120                     125
Lys Ile Lys Glu Trp Val Thr Val Lys Leu Asn Glu Leu Glu Leu Glu
        130                     135                     140
Asn Gln Asn Leu Arg Leu Ile Asn Gln Asn Gln Thr Glu Glu Ile Arg
```

     145   150   155   160

Thr Met Gln Ser Lys Leu Gln Val Gln Gly Lys Lys Ser Ser Thr Val
                  165   170   175

Ser Thr Leu Lys Leu Ser Glu Gly Gln Arg Leu Ser Ser Leu Thr Phe
               180   185   190

Gly Cys Phe Leu Ser Arg Ala Arg Ser Pro Pro Gln Val Val Lys Ser
          195   200   205

Glu Glu Met Ser Lys Ile Ser Ser Lys Glu Pro Glu Phe Thr Glu Gly
    210   215   220

Lys Asp Met Glu Glu Met Glu Ile Pro Glu Lys Ser Val Asp Asn Gln
225   230   235   240

Val Leu Glu Asn Asn Arg Gly Gln Arg Thr Leu His Gln Thr Pro Cys
               245   250   255

Gly Ser Glu Gln Asn Arg Lys Thr Arg Thr Ser Phe Ala Thr Asp Gly
          260   265   270

Gly Ile Ser Gln Asn Ser Gly Ala Pro Val Ser Asp Trp Ser Ser Asp
          275   280   285

Glu Glu Asp Gly Ser Arg Gly Arg Ser Lys Ser Arg Cys Thr Ser Thr
          290   295   300

Leu Ser Ser His Thr Ser Glu Glu Gly Val Gln Cys Ser Arg Met Gly
305   310   315   320

Ser Glu Met Tyr Leu Thr Ala Ser Asp Asp Ser Ser Ser Ile Phe Glu
               325   330   335

Glu Glu Thr Phe Gly Ile Lys Arg Pro Glu His Lys Lys Leu Tyr Ser
          340   345   350

Trp Gln Gln Glu Ala Gln Trp Lys Ala Leu Asn Ser Pro Leu Gly Lys
          355   360   365

Gly Asn Ser Glu Leu Ser Lys Lys Glu Gln Asp Ser Ser Ser Asp Glu
          370   375   380

Leu Asn Lys Lys Phe Gln Ser Gln Arg Leu Asp Tyr Ser Ser Ser Ser
385   390   395   400

Ser Glu Ala Asn Thr Pro Ser Pro Ile Leu Thr Pro Ala Leu Met Pro
               405   410   415

Lys His Pro Asn Ser Leu Ser Gly Lys Gly Thr Gln Leu Val Pro Ser
          420   425   430

Ser His Leu Pro Pro Pro Lys Leu Arg Ile Pro Asn Val Phe Ser Ile

```
                435                      440                      445
Ser Val Ala Leu Ala Lys Arg His Leu Ser Gln Pro Gln Leu Ser Ser
        450                  455                  460
Asp Arg Met Phe Gly Thr Asn Arg Asn Ala Ile Ser Met Ile Arg Pro
465                  470                  475                  480
Leu Arg Pro Gln Glu Thr Asp Leu Asp Leu Val Asp Gly Asp Ser Thr
                485                  490                  495
Glu Val Leu Glu Asn Met Asp Thr Ser Cys Asp Asp Gly Leu Phe Ser
            500                  505                  510
Tyr Asp Ser Leu Asp Ser Pro Asn Ser Asp Asp Gln Glu His Cys Asp
            515                  520                  525
Pro Ala Lys Lys Val Ala Tyr Ser Lys Pro Pro Thr Pro Pro Leu His
        530                  535                  540
Arg Phe Pro Ser Trp Glu Ser Arg Ile Tyr Ala Val Ala Lys Ser Gly
545                  550                  555                  560
Ile Arg Met Ser Glu Ala Phe Asn Met Glu Ser Val Asn Lys Asn Ser
                565                  570                  575
Ala Ala Thr Leu Ser Tyr Thr Thr Ser Gly Leu Tyr Thr Ser Leu Ile
            580                  585                  590
Tyr Lys Asn Met Thr Thr Pro Val Tyr Thr Thr Leu Arg Gly Arg Arg
        595                  600                  605
Pro Lys
    610
```

```
Met Gly Gly Leu Leu Thr Pro Gly Leu Trp Cys Cys Arg Gln Pro Ser
  1                 5                  10                  15
Pro Val Tyr Thr Ala Thr Gln Pro Gln Ala Val Gly Ser Gln Trp Pro
                20                  25                  30
Gly Gly Lys Gln Leu His Ser Pro Ala Leu Pro Gly Cys Pro Phe Gly
```

```
          35                    40                    45
Phe Gln Pro Gly Ser Arg Pro Ala Ser Thr Gly Lys Pro Val Thr Glu
      50                    55                    60
Ala Trp Thr Gln Arg Trp Thr Arg His Leu Leu Ala Thr Cys Asp Leu
65                    70                    75                    80
Gly Arg Ser Glu Ser Val Ala Arg Ser Thr Cys Ser Ala Ala Ala Ile
                  85                    90                    95
Asn Ser Leu Pro Val Ser Lys Arg Arg
              100                   105
```

<210> 4207

<211> 466

<212> PRT

<213> Homo sapiens

<400> 4207

```
Met Ala Leu Ala Gly Thr Gln Val Gly Pro Pro Pro Gln Glu Arg Ala
  1                   5                    10                    15
Pro Glu Pro Ile Gly Arg Ala Trp Gly Pro Pro Gly Ile Thr Gln Pro
                  20                    25                    30
Ser Ala Pro Gly Ala Thr Val Gly Arg Arg Val Ser Val Ala Ala Gly
              35                    40                    45
Pro Trp Leu His Gly Pro His Gly Ser Cys Glu Trp Val Arg Leu Pro
          50                    55                    60
Gly Ser Gly Asp Arg Gln Arg Thr Asp Pro Arg Leu Gly Ser Trp Arg
65                    70                    75                    80
Glu Gly Arg Arg Gly Ala Gly Gln Pro Gly Ser Asp Thr Val Ser Ser
                  85                    90                    95
Ser Gly Arg Arg Arg Pro Ala Gly Ser Thr Gln Ala Gly Arg Gly Trp
              100                   105                   110
Ala Ser Leu Glu Pro Ala Thr Ala Leu Val Gly Thr Trp Arg Arg Ala
          115                   120                   125
His Val Ser Pro His Ala Ser His Arg Gly Ala Leu Ala Arg Arg Pro
      130                   135                   140
Ala Arg Gly Ala Cys Ala Trp Asp Gly Ser Gln Asn Gln Arg Ala Pro
```

```
      145                    150                    155                    160
Val Arg Leu Ala Ser Thr Val Gly Leu Trp Glu Ser Leu Leu Phe Ile
                165                    170                    175
Phe Lys His Leu Gly Phe Ser Thr Gly Ser Trp Leu Leu Phe Pro Gln
                180                    185                    190
Gly Met Ser Leu Arg Ser Arg Thr Arg Trp Gly Ser Gln Glu Ala Ala
                195                    200                    205
Ala Gln Ser Leu His Ala Gly Lys Gly Ser His Leu Ser Gly Val Gly
      210                    215                    220
Ser Leu Val Val Gln Gly Ser Ala Gly Gln Ser Leu Gly Cys Ala Ile
225                    230                    235                    240
Thr Ala Thr Ala Phe Leu Leu Gly Ala Ser Thr Ser Ser Lys Thr Gly
                245                    250                    255
Leu Val Pro Ala Pro Pro Ala Ala Ser Gly Gln Gly His Glu Gly Arg
                260                    265                    270
Ala Leu Ser Thr Trp Ala Gly Gly Thr Leu Pro Gly Gly Thr Glu Gly
                275                    280                    285
Ala Pro Thr Trp Ala Pro Ala Ser Cys Pro Ser Leu Leu Pro Pro Arg
      290                    295                    300
Ala Arg Trp Gly Pro Gly Phe Glu Glu Pro Arg Thr Arg Ala Leu Pro
305                    310                    315                    320
Ala Gly Ser Trp Arg Arg Ala Ser Gly Leu Gly Asn Arg Gly Arg Lys
                325                    330                    335
Asn Ser Ser Arg Pro Gly Thr Lys Gly Ala Ser Gly Arg Thr His Gly
                340                    345                    350
Trp Pro Arg Ala Arg Gly Val Thr Ala Gly Arg Pro Pro Gly Pro Gly
                355                    360                    365
Pro Val Arg Gly Gln Tyr Gly Asp Pro Ala Cys Arg Trp Gln Ser Val
      370                    375                    380
Leu Cys Val Trp Gly Pro Gln His Arg Leu Gly Gly Gly Trp Gly Arg

385                    390                    395                    400
Gly Ser Arg Ser Gly Gln Gly Leu Gly Gly Ser Gly Thr Gly Arg Gly
                405                    410                    415
Glu Gln Thr Gly Ser Ser Ser Gly His His Pro Gly Thr Ala Ala Pro
                420                    425                    430
```

Thr Arg Ala Ala Pro His Pro Trp Pro Arg Ser Pro Gly Thr Ala Gly
    435   440   445

Pro Gly Val Ser Glu Gly Leu Ser Arg Ala Gly Thr Asp Gln Trp Ser
    450   455   460

Pro Gly
465

<210> 4208
<211> 612
<212> PRT
<213> Homo sapiens

<400> 4208
Met Leu Leu Phe Arg Asp Cys Glu Glu Ala Thr Asp Phe Leu Thr Cys
  1   5   10   15

His Gly Leu Thr Val Ser Asp Gly Cys Val Glu Leu Asn Arg Ser Ala
         20   25   30

Phe Leu Glu Pro Glu Gly Leu Ser Lys Thr Arg Lys Ser Val Phe Ile
    35   40   45

Thr Arg Lys Leu Thr Val Ser Val Gly Glu Ile Val Asn Gly Gly Pro
    50   55   60

Leu Pro Pro Val Pro Arg His Thr Pro Val Cys Ser Phe Asn Ser Gln
65   70   75   80

Asn Lys Tyr Ile Gly Glu Ser Leu Ala Ala Glu Leu Pro Val Ser Thr
         85   90   95

Gln Arg Pro Gly Ser Asp Thr Val Gly Gly Gly Arg Gly Glu Glu Cys
         100   105   110

Gly Val Glu Pro Asp Ala Pro Leu Ser Ser Leu Pro Gln Ser Leu Pro
    115   120   125

Ala Pro Ala Pro Ser Pro Val Pro Leu Pro Pro Val Leu Ala Leu Thr
    130   135   140

Pro Ser Val Ala Pro Ser Leu Phe Gln Leu Ser Val Gln Pro Glu Pro
145   150   155   160

Pro Pro Pro Glu Pro Val Pro Met Tyr Ser Asp Glu Asp Leu Ala Gln
         165   170   175

Val Val Asp Glu Leu Ile Gln Glu Ala Leu Gln Arg Asp Cys Glu Glu
               180   185   190

Val Gly Ser Ala Gly Ala Ala Tyr Ala Ala Ala Ala Leu Gly Val Ser
             195   200   205

Asn Ala Ala Met Glu Asp Leu Leu Thr Ala Ala Thr Thr Gly Ile Leu
         210   215   220

Arg His Ile Ala Ala Glu Glu Val Ser Lys Glu Arg Glu Arg Arg Glu

225   230   235   240

Gln Glu Arg Gln Arg Ala Glu Glu Glu Arg Leu Lys Gln Glu Arg Glu
             245   250   255

Leu Val Leu Ser Glu Leu Ser Gln Gly Leu Ala Val Glu Leu Met Glu
             260   265   270

Arg Val Met Met Glu Phe Val Arg Glu Thr Cys Ser Gln Glu Leu Lys
             275   280   285

Asn Ala Val Glu Thr Asp Gln Arg Val Arg Val Ala Arg Cys Cys Glu
         290   295   300

Asp Val Cys Ala His Leu Val Asp Leu Phe Leu Val Glu Glu Ile Phe
305   310   315   320

Gln Thr Ala Lys Glu Thr Leu Gln Glu Leu Gln Cys Phe Cys Lys Tyr
             325   330   335

Leu Gln Arg Trp Arg Glu Ala Val Thr Ala Arg Lys Lys Leu Arg Arg
             340   345   350

Gln Met Arg Ala Phe Pro Ala Ala Pro Cys Cys Val Asp Val Ser Asp
             355   360   365

Arg Leu Arg Ala Leu Ala Pro Ser Ala Glu Cys Pro Ile Ala Glu Glu
         370   375   380

Asn Leu Ala Arg Gly Leu Leu Asp Leu Gly His Ala Gly Arg Leu Gly
385   390   395   400

Ile Ser Cys Thr Arg Leu Arg Arg Leu Arg Asn Lys Thr Ala His Gln
             405   410   415

Met Lys Val Gln His Phe Tyr Gln Gln Leu Leu Ser Asp Val Ala Trp
             420   425   430

Ala Ser Leu Asp Leu Pro Ser Leu Val Ala Glu His Leu Pro Gly Arg
             435   440   445

Gln Glu His Val Phe Trp Lys Leu Val Leu Val Leu Pro Asp Val Glu

```
            450                 455                 460
Glu Gln Ser Pro Glu Ser Cys Gly Arg Ile Leu Ala Asn Trp Leu Lys
465                 470                 475                 480
Val Lys Phe Met Gly Asp Glu Gly Ser Val Asp Asp Thr Ser Ser Asp
                    485                 490                 495
Ala Gly Gly Ile Gln Thr Leu Ser Leu Phe Asn Ser Leu Ser Ser Lys
                500                 505                 510
Gly Asp Gln Met Ile Ser Val Asn Val Cys Ile Lys Val Ala His Gly
                515                 520                 525
Ala Leu Ser Asp Gly Ala Ile Asp Ala Val Glu Thr Gln Lys Asp Leu
            530                 535                 540
Leu Gly Ala Ser Gly Leu Met Leu Leu Leu Pro Pro Lys Met Lys Ser
545                 550                 555                 560
Glu Asp Met Ala Glu Glu Asp Val Tyr Trp Leu Ser Ala Leu Leu Gln
                565                 570                 575
Leu Lys Gln Leu Leu Gln Ala Lys Pro Phe Gln Pro Ala Leu Pro Leu
                580                 585                 590
Val Val Leu Val Pro Ser Pro Gly Gly Asp Ala Val Glu Lys Glu Val
                595                 600                 605
Glu Asp Gly Leu

            610
```

<210> 4209

<211> 209

<212> PRT

<213> Homo sapiens

<400> 4209

```
Met Ala Ser Met Gly Leu Gln Val Met Gly Ile Ala Leu Ala Val Leu
  1                 5                 10                 15
Gly Trp Leu Ala Val Met Leu Cys Cys Ala Leu Pro Met Trp Arg Val
                20                 25                 30
Thr Ala Phe Ile Gly Ser Asn Ile Val Thr Ser Gln Thr Ile Trp Glu
            35                 40                 45
```

Gly Leu Trp Met Asn Cys Val Val Gln Ser Thr Gly Gln Met Gln Cys
    50   55   60

Lys Val Tyr Asp Ser Leu Leu Ala Leu Pro Gln Asp Leu Gln Ala Ala
65   70   75   80

Arg Ala Leu Val Ile Ile Ser Ile Ile Val Ala Ala Leu Gly Val Leu
         85   90   95

Leu Ser Val Val Gly Gly Lys Cys Thr Asn Cys Leu Glu Asp Glu Ser
        100   105   110

Ala Lys Ala Lys Thr Met Ile Val Ala Gly Val Val Phe Leu Leu Ala
        115   120   125

Gly Leu Met Val Ile Val Pro Val Ser Trp Thr Ala His Asn Ile Ile
        130   135   140

Gln Asp Phe Tyr Asn Pro Leu Val Ala Ser Gly Gln Lys Arg Glu Met
145   150   155   160

Gly Ala Ser Leu Tyr Val Gly Trp Ala Ala Ser Gly Leu Leu Leu Leu
        165   170   175

Gly Gly Gly Leu Leu Cys Cys Asn Cys Pro Pro Arg Thr Asp Lys Pro
        180   185   190

Tyr Ser Ala Lys Tyr Ser Ala Ala Arg Ser Ala Ala Ala Ser Asn Tyr
        195   200   205

Val

<210> 4210

<211> 211

<212> PRT

<213> Homo sapiens

<400> 4210

Met Ser Cys Thr Ile Glu Lys Ile Leu Thr Asp Ala Lys Thr Leu Leu
1   5   10   15

Glu Arg Leu Arg Glu His Asp Ala Ala Ala Glu Ser Leu Val Asp Gln
        20   25   30

Ser Ala Ala Leu His Arg Arg Val Ala Ala Met Arg Glu Ala Gly Thr
        35   40   45

Ala Leu Pro Asp Gln Val Arg Gln Arg Tyr Gln Glu Asp Ala Ser Asp
    50   55   60

Met Lys Asp Met Ser Lys Tyr Lys Pro His Ile Leu Leu Ser Gln Glu
65   70   75   80

Asn Thr Gln Ile Arg Asp Leu Gln Gln Glu Asn Arg Glu Leu Trp Ile
            85   90   95

Ser Leu Glu Glu His Gln Asp Ala Leu Glu Leu Ile Met Ser Lys Tyr
            100   105   110

Arg Lys Gln Met Leu Gln Leu Met Val Ala Lys Lys Ala Val Asp Ala
            115   120   125

Glu Pro Val Leu Lys Ala His Gln Ser His Ser Ala Glu Ile Glu Ser
     130   135   140

Gln Ile Asp Arg Ile Cys Glu Met Gly Glu Val Met Arg Lys Ala Val
145   150   155   160

Gln Val Asp Asp Asp Gln Phe Cys Lys Ile Gln Glu Lys Leu Ala Gln
            165   170   175

Leu Glu Leu Glu Asn Lys Glu Leu Arg Glu Leu Leu Ser Ile Ser Ser
            180   185   190

Glu Ser Leu Gln Ala Arg Lys Glu Asn Ser Met Asp Thr Ala Ser Gln
            195   200   205

Ala Ile Lys
    210

<210> 4211

<211> 122

<212> PRT

<213> Homo sapiens

<400> 4211

Met Cys Tyr Leu Leu Leu Leu Leu Ile Gln Thr Ala Glu Leu Leu Ile
  1   5   10   15

His Pro Gln Gly Leu Gln Ala Val Ser Asn Gly Glu Ser Ala Leu Lys
            20   25   30

Gly Thr Arg Pro Thr Phe Ser Ser Pro Phe Ile Leu Val Thr Glu Gly
            35   40   45

Arg Lys Glu Trp Glu Gly Val Phe Leu Ser Ser Gly Trp Lys Gly Asn
        50   55   60

Thr Leu Ser Asn Tyr Tyr Ile Ser Leu Val Phe Tyr Tyr Ser Arg Ile
65   70   75   80

Leu Gln Pro Tyr Phe Tyr Cys Leu Trp Gly Lys Leu Glu Met Val Thr
                    85   90   95

Leu Ile Arg Ser Val Trp Arg Gly Ile Asn Gly Gly Asp Lys Ile Gln
                100   105   110

Leu Val Leu Glu Asn Val Lys Val Leu Lys
        115   120

<210> 4212

<211> 1082

<212> PRT

<213> Homo sapiens

<400> 4212

Met Ala Pro Glu Asp Lys Asp Pro Asp Leu Glu Thr Ile Leu Asn Ile
 1   5   10   15

Pro Ser Ala Leu Thr Pro Thr Val Val Pro Val Ile Val Thr Val Pro
                20   25   30

Gln Ser Lys Ala Lys Gly Lys Ile Lys Gly Lys Glu Lys Pro Lys Glu
        35   40   45

Ser Leu Lys Glu Glu Glu His Pro Lys Glu Glu Glu Lys Lys Glu Glu
        50   55   60

Glu Val Glu Pro Glu Pro Val Leu Gln Glu Thr Leu Asp Val Pro Thr
65   70   75   80

Phe Gln Ser Leu Asn Val Ser Cys Pro Ser Gly Leu Leu Leu Thr Phe
                85   90   95

Ile Gly Gln Glu Ser Thr Gly Gln Tyr Val Ile Asp Glu Glu Pro Thr
                100   105   110

Trp Asp Ile Met Val Arg Gln Ser Tyr Pro Gln Arg Val Lys His Tyr
        115   120   125

Glu Phe Tyr Lys Thr Val Met Pro Pro Ala Glu Gln Glu Ala Ser Arg
        130   135   140

Val Ile Thr Ser Gln Gly Thr Val Val Lys Tyr Met Leu Asp Gly Ser
145   150   155   160

Thr Gln Ile Leu Phe Ala Asp Gly Ala Val Ser Arg Ser Pro Asn Ser
               165   170   175

Gly Leu Ile Cys Pro Pro Ser Glu Met Pro Ala Thr Pro His Ser Gly
               180   185   190

Asp Leu Met Asp Ser Ile Ser Gln Gln Lys Ser Glu Thr Ile Pro Ser
               195   200   205

Glu Ile Thr Asn Thr Lys Lys Gly Lys Ser His Lys Ser Gln Ser Ser
          210   215   220

Met Ala His Lys Gly Glu Ile His Asp Pro Pro Pro Glu Ala Val Gln
225   230   235   240

Thr Val Thr Pro Val Glu Val His Ile Gly Thr Trp Phe Thr Thr Thr
               245   250   255

Pro Glu Gly Asn Arg Ile Gly Thr Lys Gly Leu Glu Arg Ile Ala Asp
               260   265   270

Leu Thr Pro Leu Leu Ser Phe Gln Ala Thr Asp Pro Val Asn Gly Thr
               275   280   285

Val Met Thr Thr Arg Glu Asp Lys Val Val Ile Val Glu Arg Lys Asp
          290   295   300

Gly Thr Arg Ile Val Asp His Ala Asp Gly Thr Arg Ile Thr Thr Phe
305   310   315   320

Tyr Gln Val Tyr Glu Asp Gln Ile Ile Leu Pro Asp Asp Gln Glu Thr
               325   330   335

Thr Glu Gly Pro Arg Thr Val Thr Arg Gln Val Lys Cys Met Arg Val
               340   345   350

Glu Ser Ser Arg Tyr Ala Thr Val Ile Ala Asn Cys Glu Asp Ser Ser
               355   360   365

Cys Cys Ala Thr Phe Gly Asp Gly Thr Thr Ile Ile Ala Lys Pro Gln
          370   375   380

Gly Thr Tyr Gln Val Leu Pro Pro Asn Thr Gly Ser Leu Tyr Ile Asp
385   390   395   400

Lys Asp Cys Ser Ala Val Tyr Cys His Glu Ser Ser Ser Asn Ile Tyr
               405   410   415

Tyr Pro Phe Gln Lys Arg Glu Gln Leu Arg Ala Gly Arg Tyr Ile Met

                    420   425   430
Arg His Thr Ser Glu Val Ile Cys Glu Val Leu Asp Pro Glu Gly Asn
              435   440   445
Thr Phe Gln Val Met Ala Asp Gly Ser Ile Ser Thr Ile Leu Pro Glu
         450   455   460
Lys Lys Leu Glu Asp Asp Leu Asn Glu Lys Thr Glu Gly Tyr Asp Ser
465   470   475   480
Leu Ser Ser Met His Leu Glu Lys Asn His Gln Gln Ile Tyr Gly Glu
                   485   490   495
His Val Pro Arg Phe Phe Val Met Tyr Ala Asp Gly Ser Gly Met Glu
                   500   505   510
Leu Leu Arg Asp Ser Asp Ile Glu Glu Tyr Leu Ser Leu Ala Tyr Lys
              515   520   525
Glu Ser Asn Thr Val Val Leu Gln Glu Pro Val Gln Glu Gln Pro Gly
         530   535   540
Thr Leu Thr Ile Thr Val Leu Arg Pro Phe His Glu Ala Ser Pro Trp
545   550   555   560
Gln Val Lys Lys Glu Asp Thr Ile Val Pro Pro Asn Leu Arg Ser Arg
                   565   570   575
Ser Trp Glu Thr Phe Pro Ser Val Glu Lys Lys Thr Pro Gly Pro Pro
                   580   585   590
Phe Gly Thr Gln Ile Trp Lys Gly Leu Cys Ile Glu Ser Lys Gln Leu
              595   600   605
Val Ser Ala Pro Gly Ala Ile Leu Lys Ser Pro Ser Val Leu Gln Met
         610   615   620
Arg Gln Phe Ile Gln His Glu Val Ile Lys Asn Glu Val Lys Leu Arg
625   630   635   640
Leu Gln Val Ser Leu Lys Asp Tyr Ile Asn Tyr Ile Leu Lys Lys Glu
                   645   650   655
Asp Glu Leu Gln Glu Met Met Ala Lys Asp Ser Arg Thr Glu Glu Glu
                   660   665   670
Arg Gly Asn Ala Ala Asp Leu Leu Lys Leu Val Met Ser Phe Pro Lys
              675   680   685
Met Glu Glu Thr Thr Lys Ser His Val Thr Glu Val Ala Ala His Leu
         690   695   700
Thr Asp Leu Phe Lys Gln Ser Leu Ala Thr Pro Pro Lys Cys Pro Pro

705   710   715   720
Asp Thr Phe Gly Lys Asp Phe Phe Glu Lys Thr Trp Arg His Thr Ala
                725   730   735
Ser Ser Lys Arg Trp Lys Glu Lys Ile Asp Lys Thr Arg Lys Glu Ile
                740   745   750
Glu Thr Thr Gln Asn Tyr Leu Met Asp Ile Lys Asn Arg Ile Ile Pro
                755   760   765
Pro Phe Phe Lys Ser Glu Leu Asn Gln Leu Tyr Gln Ser Gln Tyr Asn
        770   775   780
His Leu Asp Ser Leu Ser Lys Lys Leu Pro Ser Phe Thr Lys Lys Asn
785   790   795   800
Glu Asp Ala Asn Glu Thr Ala Val Gln Asp Thr Ser Asp Leu Asn Leu
                805   810   815
Asp Phe Lys Pro His Lys Val Ser Glu Gln Lys Ser Ser Gly Val Pro
                820   825   830
Ser Leu Pro Lys Pro Glu Ile Ser Ala Asp Lys Lys Asp Phe Thr Ala
                835   840   845
Gln Asn Gln Thr Glu Asn Leu Thr Lys Ser Pro Glu Glu Ala Glu Ser
        850   855   860
Tyr Glu Pro Val Lys Ile Pro Thr Gln Ser Leu Leu Gln Asp Val Ala
865   870   875   880
Gly Gln Thr Arg Lys Glu Lys Val Lys Leu Pro His Tyr Leu Leu Ser
                885   890   895
Ser Lys Pro Lys Ser Gln Pro Leu Ala Lys Val Gln Asp Ser Val Gly
                900   905   910
Gly Lys Val Asn Thr Ser Ser Val Ala Ser Ala Ala Ile Asn Asn Ala
        915   920   925
Lys Ser Ser Leu Phe Gly Phe His Leu Leu Pro Ser Ser Val Lys Phe
        930   935   940
Gly Val Leu Lys Glu Gly His Thr Tyr Ala Thr Val Val Lys Leu Lys
945   950   955   960
Asn Val Gly Val Asp Phe Cys Arg Phe Lys Val Lys Gln Pro Pro Pro
                965   970   975
Ser Thr Gly Leu Lys Val Thr Tyr Lys Pro Gly Pro Val Ala Ala Gly
        980   985   990
Met Gln Thr Glu Leu Asn Ile Glu Leu Phe Ala Thr Ala Val Gly Glu

```
        995                  1000                  1005
Asp Gly Ala Lys Gly Ser Ala His Ile Ser His Asn Ile Glu Ile Met
    1010                1015                1020
Thr Glu His Glu Val Leu Phe Leu Pro Val Glu Ala Thr Val Leu Thr
1025                1030                1035                1040
Ser Ser Asn Tyr Asp Lys Arg Pro Lys Asp Phe Pro Gln Gly Lys Glu
            1045                1050                1055
Asn Pro Met Val Gln Arg Thr Ser Thr Ile Tyr Ser Ser Thr Leu Gly
            1060                1065                1070
Val Phe Met Ser Arg Lys Val Ser Pro His
        1075                1080
```

<210> 4213

<211> 254

<212> PRT

<213> Homo sapiens

<400> 4213

```
Met Glu Phe Gly Leu Ser Trp Val Phe Leu Val Ala Ile Leu Lys Gly
  1                 5                  10                  15
Val Gln Cys Glu Val Gln Leu Val Glu Ser Gly Gly Ala Leu Val Gln
                20                  25                  30
Pro Gly Arg Ser Leu Arg Leu Ser Cys Lys Ser Ser Gly Phe Thr Phe
            35                  40                  45
Gly Asp Tyr Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu
      50                  55                  60
Glu Trp Val Gly Phe Ile Arg Asn Lys Ala Phe Gly Gly Thr Thr Ile
65                  70                  75                  80
Tyr Ala Ala Ser Val Glu Gly Arg Phe Ser Ile Ser Arg Asp Asp Ser
                85                  90                  95
Lys Gly Val Ala Tyr Leu Gln Met Ser Ser Leu Gln Thr Glu Asp Thr
            100                 105                 110
Ala Val Tyr Tyr Cys Thr Arg Asp Ile Phe Val Thr Gly Ile Tyr His
            115                 120                 125
Tyr Tyr Phe Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
```

```
        130                    135                    140
Gly Glu Ser Ser Gln Pro Leu Ser Cys Phe Gln Ser Glu Gly Phe His
145                    150                    155                    160
Tyr Ile Phe Gly Gly Lys Tyr Val Cys Trp Val Ser Cys Gln Lys Ser
                    165                    170                    175
Arg Gly Thr Val Gly Gly Ala Arg Glu Asn Val Leu Arg Gln Arg Arg
                    180                    185                    190
Pro Asn Arg Arg Val Pro Arg Ala Pro Asp Val Pro Ser Ser Ser Ala
                    195                    200                    205
Gln Gln His Gly Ser Val Cys Gly Gln Gly His Pro Gly Pro Leu Gly
            210                    215                    220
Ser His Ala Gln Gln Pro Pro Gly Pro Pro Arg Val Gln Ser Glu Arg
225                    230                    235                    240
Val Pro Gly Thr Glu Arg Gly Ala Ser Ser Cys Leu Arg Ser
                    245                    250
```

<210> 4214

<211> 103

<212> PRT

<213> Homo sapiens

<400> 4214

```
Met Pro Ser Pro Pro Thr Ala Ser Leu Leu Met Gln Gly Ser Gln Pro
  1                   5                    10                   15
His Pro Arg Ala Leu His Ile Arg Phe His Ser Cys Lys Tyr Asn Gly
                    20                   25                   30
Pro Pro Ser Val Leu Gln Ile Ser Pro Ala His His Trp Ala Ser Arg
            35                   40                   45
Ala Ala Ala Cys Pro Leu Leu Arg His Leu Ala Gly Gly Ser Leu Pro
        50                   55                   60
Cys Ser Pro Cys Gly Arg Asp Pro Arg Ala Leu Val Pro Ala Cys His
65                   70                   75                   80
Ser Pro Cys Cys Ile Ser Leu Pro Pro Leu Pro Glu Glu Phe Leu Leu
                    85                   90                   95
Arg Ala Cys Ser Leu Asn Trp
```

100

<210> 4215
<211> 102
<212> PRT
<213> Homo sapiens

<400> 4215

Met Leu Lys Phe Ser Leu Val Phe Leu Phe Phe Leu Phe Phe Pro Arg
1   5   10   15
Arg Ser Leu Ala Leu Ser Pro Arg Leu Glu Tyr Asn Gly Met Ile Ser
                20   25   30
Thr His Cys Asn Leu His Leu Leu Gly Ser Ser Asp Ser Pro Ala Ser
            35   40   45
Ala Ser Arg Val Ala Arg Ile Thr Gly Ala His His Asn Val Trp Pro
        50   55   60
Ile Phe Cys Ile Phe Ser Arg Asp Arg Val Ser Pro Cys Trp Pro Gly
65   70   75   80
Trp Ser Ile Thr Pro Asp Leu Val Ile Cys Leu Pro Gln Pro Pro Lys
                85   90   95
Val Leu Gly Leu Gln Ala
            100

<210> 4216
<211> 762
<212> PRT
<213> Homo sapiens

<400> 4216

Met His Asn Leu Ile Phe Gln Met Tyr Asp Glu Gly Glu Arg Glu Ile
1   5   10   15
Asn Ile Thr Ser Ala Leu Ala Glu Lys Ile Lys Val Asn Trp Thr Pro
                20   25   30
Glu Ile Asn Lys Glu His Leu Leu Gln Gly Leu Leu Pro Asp Val Gln

```
              35                    40                    45
Val Pro Thr Ser Val Lys Asp Met Arg Tyr Cys Gln Val Ser Phe Gln
     50                    55                    60
Asp Asp His Val Ser Leu Glu Ser Ala Phe Thr Val Arg Pro Leu Pro
65                    70                    75                    80


Asp Glu Pro Lys His Leu Lys Cys Glu Met Lys Gly Gly Lys Thr Val
                   85                    90                    95
Gln Met Gly Gln Glu Leu Gln Gly Glu Val Val Ile Ile Ile Thr Asp
                  100                   105                   110
Gln Tyr Gly Asn Gln Ile Gln Ala Phe Ser Pro Ser Ser Leu Ser Ser
             115                   120                   125
Leu Ser Ile Ala Gly Val Gly Leu Asp Ser Ser Asn Leu Lys Thr Thr
        130                   135                   140
Phe Gln Glu Asn Thr Gln Ser Ile Ser Val Arg Gly Ile Lys Phe Ile
145                   150                   155                   160
Pro Gly Pro Pro Gly Asn Lys Asp Leu Cys Phe Thr Trp Arg Glu Phe
                  165                   170                   175
Ser Asp Phe Ile Arg Val Gln Leu Ile Ser Gly Pro Pro Ala Lys Leu
             180                   185                   190
Leu Leu Ile Asp Trp Pro Glu Leu Lys Glu Ser Ile Pro Val Ile Asn
             195                   200                   205
Gly Arg Asp Leu Gln Asn Pro Ile Ile Val Gln Leu Cys Asp Gln Trp
        210                   215                   220
Asp Asn Pro Ala Pro Val Gln His Val Lys Ile Ser Leu Thr Lys Ala
225                   230                   235                   240
Ser Asn Leu Lys Leu Met Pro Ser Asn Gln Gln His Lys Thr Asp Glu
             245                   250                   255
Lys Gly Arg Ala Asn Leu Gly Val Phe Ser Val Phe Ala Pro Arg Gly
             260                   265                   270
Glu His Thr Leu Gln Val Lys Ala Ile Tyr Asn Lys Ser Ile Ile Glu
             275                   280                   285
Gly Pro Ile Ile Lys Leu Met Ile Leu Pro Asp Pro Glu Lys Pro Val
        290                   295                   300
Arg Leu Asn Val Lys Tyr Asp Lys Asp Ala Ser Phe Leu Ala Gly Gly
305                   310                   315                   320
```

Leu Phe Thr Asp Phe Met Ile Ser Val Ile Ser Glu Asp Asp Ser Ile
          325   330   335

Ile Lys Asn Ile Asn Pro Ala Arg Ile Ser Met Lys Met Trp Lys Leu
          340   345   350

Ser Thr Ser Gly Asn Arg Pro Pro Ala Asn Ala Glu Thr Phe Ser Cys
          355   360   365

Asn Lys Ile Lys Asp Asn Asp Lys Glu Asp Gly Cys Phe Tyr Phe Arg
      370   375   380

Asp Lys Val Ile Pro Asn Lys Val Gly Thr Tyr Cys Ile Gln Phe Gly
385   390   395   400

Phe Met Met Asp Lys Thr Asn Ile Leu Asn Ser Glu Gln Val Ile Val
          405   410   415

Glu Val Leu Pro Asn Gln Pro Val Lys Leu Val Pro Lys Ile Lys Pro
          420   425   430

Pro Thr Pro Ala Val Ser Asn Val Arg Ser Val Ala Ser Arg Thr Leu
          435   440   445

Val Arg Asp Leu His Leu Ser Ile Thr Asp Asp Tyr Asp Asn His Thr
      450   455   460

Gly Ile Asp Leu Val Gly Thr Ile Ile Ala Thr Ile Lys Gly Ser Asn
465   470   475   480

Glu Glu Asp Thr Asp Thr Pro Leu Phe Ile Gly Lys Val Arg Thr Leu
          485   490   495

Glu Phe Pro Phe Val Asn Gly Ser Ala Glu Ile Met Ser Leu Val Leu
          500   505   510

Ala Glu Ser Ser Pro Gly Arg Asp Ser Thr Glu Tyr Phe Ile Val Phe
          515   520   525

Glu Pro Arg Leu Pro Leu Leu Ser Arg Thr Leu Glu Pro Tyr Ile Leu
          530   535   540

Pro Phe Met Phe Tyr Asn Asp Val Lys Lys Gln Gln Gln Met Ala Ala
545   550   555   560

Leu Thr Lys Glu Lys Asp Gln Leu Ser Gln Ser Ile Val Met Tyr Lys
          565   570   575

Ser Leu Phe Glu Ala Ser Gln Gln Leu Leu Asn Glu Met Lys Cys Gln
          580   585   590

Val Glu Glu Ala Arg Leu Lys Glu Ala Gln Leu Arg Asn Glu Leu Lys
          595   600   605

Ile His Asn Ile Asp Ile Pro Thr Thr Gln Gln Val Pro His Ile Glu
    610   615   620

Ala Leu Leu Lys Arg Lys Leu Ser Glu Gln Glu Glu Leu Lys Lys Lys
625   630   635   640

Pro Arg Arg Ser Cys Thr Leu Pro Asn Tyr Thr Lys Gly Ser Gly Asp
          645   650   655

Val Leu Gly Lys Ile Ala His Leu Ala Gln Ile Glu Asp Asp Arg Ala
         660   665   670

Ala Met Val Ile Ser Trp His Leu Ala Ser Asp Met Asp Cys Val Val
         675   680   685

Thr Leu Thr Thr Asp Ala Ala Arg Arg Ile Tyr Asp Glu Thr Gln Gly
    690   695   700

Arg Gln Gln Val Leu Pro Leu Asp Ser Ile Tyr Lys Lys Thr Leu Pro
705   710   715   720

Asp Trp Lys Arg Ser Leu Pro His Phe Arg Asn Gly Lys Leu Tyr Phe
          725   730   735

Lys Pro Ile Gly Asp Pro Val Phe Ala Arg Asp Leu Leu Thr Phe Pro
         740   745   750

Asp Asn Val Glu His Cys Glu Thr Gly Cys
    755   760

<210> 4217

<211> 171

<212> PRT

<213> Homo sapiens

<400> 4217

Met Lys Cys Ile Pro Tyr Ser Val Leu Leu Lys Asp Leu Glu Met Arg
1   5   10   15

Asn Leu Arg Glu Leu Glu Asp Leu Ile Ile Glu Ala Val Tyr Thr Asp
         20   25   30

Ile Ile Gln Gly Lys Leu Asp Gln Arg Asn Gln Leu Leu Glu Val Asp
        35   40   45

Phe Cys Ile Gly Arg Asp Ile Arg Lys Lys Asp Ile Asn Asn Ile Val
      50   55   60

Lys Thr Leu His Glu Trp Cys Asp Gly Cys Glu Ala Val Leu Leu Gly
65   70   75   80

Ile Glu Gln Gln Val Leu Arg Ala Asn Gln Tyr Lys Glu Asn His Asn
                85   90   95

Arg Thr Gln Gln Gln Val Glu Ala Glu Ile Ala Cys Phe Gln Arg Glu
                100   105   110

Lys Arg Asp Val Pro Leu Leu Asn Leu Ile Thr Thr Ala Phe Phe Trp
                115   120   125

Leu Pro Thr Ser Arg Arg His Ser Lys Pro Pro His Pro Pro Arg Leu
        130   135   140

Arg Arg Trp Ser Ser Ser Trp Leu Asn Gly Ser Val Pro Leu Thr Leu
145   150   155   160

Ser Arg Gly Ser Pro Pro Arg Arg Cys Pro Lys
                165   170

<210> 4218

<211> 608

<212> PRT

<213> Homo sapiens

<400> 4218

Met Arg His Thr Ser Glu Val Ile Cys Glu Val Leu Asp Pro Glu Gly
 1   5   10   15

Asn Thr Phe Gln Val Met Ala Asp Gly Ser Ile Ser Thr Ile Leu Pro
                20   25   30

Glu Lys Lys Leu Glu Asp Asp Leu Asn Glu Lys Thr Glu Gly Tyr Asp
        35   40   45

Ser Leu Ser Ser Met His Leu Glu Lys Asn His Gln Gln Ile Tyr Gly
        50   55   60

Glu His Val Pro Arg Phe Phe Val Met Tyr Ala Asp Gly Ser Gly Met
65   70   75   80

Glu Leu Leu Arg Asp Ser Asp Ile Glu Glu Tyr Leu Ser Leu Ala Tyr
                85   90   95

Lys Glu Ser Asn Thr Val Val Leu Gln Glu Pro Val Gln Glu Gln Pro
                100   105   110

Gly Thr Leu Thr Ile Thr Val Leu Arg Pro Phe His Glu Ala Ser Pro
     115   120   125

Trp Gln Val Lys Lys Glu Asp Thr Ile Val Pro Pro Asn Leu Arg Ser
     130   135   140

Arg Ser Trp Glu Thr Phe Pro Ser Val Glu Lys Lys Thr Pro Gly Pro
145   150   155   160

Pro Phe Gly Thr Gln Ile Trp Lys Gly Leu Cys Ile Glu Ser Lys Gln
            165   170   175

Leu Val Ser Ala Pro Gly Ala Ile Leu Lys Ser Pro Ser Val Leu Gln
            180   185   190

Met Arg Gln Phe Ile Gln His Glu Val Ile Lys Asn Glu Val Lys Leu
            195   200   205

Arg Leu Gln Val Ser Leu Lys Asp Tyr Ile Asn Tyr Ile Leu Lys Lys
     210   215   220

Glu Asp Glu Leu Gln Glu Met Met Val Lys Asp Ser Arg Thr Glu Glu
225   230   235   240

Glu Arg Gly Asn Ala Ala Asp Leu Leu Lys Leu Val Met Ser Phe Pro
            245   250   255

Lys Met Glu Glu Thr Thr Lys Ser His Val Thr Glu Val Ala Ala His
            260   265   270

Leu Thr Asp Leu Phe Lys Gln Ser Leu Ala Thr Pro Pro Lys Cys Pro
            275   280   285

Pro Asp Thr Phe Gly Lys Asp Phe Phe Glu Lys Thr Trp Arg His Thr
     290   295   300

Ala Ser Ser Lys Arg Trp Lys Glu Lys Ile Asp Lys Thr Arg Lys Glu
305   310   315   320

Ile Glu Thr Thr Gln Asn Tyr Leu Met Asp Ile Lys Asn Arg Ile Ile
            325   330   335

Pro Pro Phe Phe Lys Ser Glu Leu Asn Gln Leu Tyr Gln Ser Gln Tyr
            340   345   350

Asn His Leu Asp Ser Leu Ser Lys Lys Leu Pro Ser Phe Thr Lys Lys
            355   360   365

Asn Glu Asp Ala Asn Glu Thr Ala Val Gln Asp Thr Ser Asp Leu Asn
            370   375   380

Leu Asp Phe Lys Pro His Lys Val Ser Glu Gln Lys Ser Ser Ser Val
385   390   395   400

```
Pro Ser Leu Pro Lys Pro Glu Ile Ser Ala Asp Lys Lys Asp Phe Thr
              405               410               415
Ala Gln Asn Gln Thr Glu Asn Leu Thr Lys Ser Pro Glu Glu Ala Glu
              420               425               430
Ser Tyr Glu Pro Val Lys Ile Pro Thr Gln Ser Leu Leu Gln Asp Val
              435               440               445
Ala Gly Gln Thr Arg Lys Glu Lys Val Lys Leu Pro His Tyr Leu Leu
          450               455               460
Ser Ser Lys Pro Lys Ser Gln Pro Leu Ala Lys Val Gln Asp Ser Val
465               470               475               480
Gly Gly Lys Val Asn Thr Ser Ser Val Ala Ser Ala Ala Ile Asn Asn
              485               490               495
Ala Lys Ser Ser Leu Phe Gly Phe His Pro Leu Pro Ser Ser Val Lys
              500               505               510
Phe Gly Val Leu Lys Glu Gly His Thr Tyr Ala Thr Val Val Lys Leu
              515               520               525
Lys Asn Val Gly Val Asp Phe Cys Arg Phe Lys Val Lys Gln Pro Pro
          530               535               540
Pro Ser Thr Gly Leu Lys Val Thr Tyr Lys Pro Gly Pro Val Ala Ala
545               550               555               560
Gly Met Gln Thr Glu Leu Asn Ile Glu Leu Phe Ala Thr Ala Val Gly
              565               570               575
Glu Asp Gly Ala Lys Gly Ser Ala His Ile Ser His Asn Ile Glu Ile
              580               585               590
Met Thr Glu His Glu Val Leu Phe Leu Pro Val Glu Ala Asn Ile Leu
          595               600               605
```

<210> 4219

<211> 252

<212> PRT

<213> Homo sapiens

<400> 4219

```
Met Ser Cys Trp Val His Leu Pro Asp Gly Val Val Ala Gly Gln Arg
```

```
     1                    5                   10                  15
    Gly Phe Ser Leu Pro Ser Arg Gly Gly Arg Ala Glu Ala Pro Leu Thr
                    20                  25                  30
    Ser Arg Thr Arg Arg Leu Ala Gly Arg Gly Ala Asp Pro Pro Pro Pro
                    35                  40                  45
    Pro Ser Arg Met Gly Arg Leu Ala Gly Arg Gly Ala Asp Pro Pro Pro
                    50                  55                  60
    Pro Pro Ser Arg Thr Gly Arg Leu Ala Trp Arg Gly Leu Thr Pro Thr
    65                  70                  75                  80
    Ser Leu Leu Asp Gly Val Ala Ala Gly Arg Arg Arg Ser Ser Pro Pro
                    85                  90                  95
    Arg Arg Gly Gly Cys Arg Ala Asp Arg Leu Leu Thr Ser Gln Thr Gly
                    100                 105                 110
    Arg Leu Pro Gly Gly Gly Ala Pro His Phe Leu Asp Gly Ala Val Ala
                    115                 120                 125
    Arg Arg Arg Val Ser Ser Leu Leu Arg Trp Gly Gly Arg Ala Glu Thr
                    130                 135                 140
    Leu Leu Thr Ser Gln Thr Gly Ser Arg Pro Gly Arg Gly Ala Pro His
    145                 150                 155                 160
    Ile Pro Asp Gly Ala Ala Gly Gln Arg Arg Ser Pro His Leu Arg Arg
                    165                 170                 175
    Trp Ala Ala Gly Gln Arg Arg Ser Ser Leu Pro Arg Trp Asp Gly Gly
                    180                 185                 190
    Gly Ala Glu Thr Leu Leu Thr Phe Gln Thr Gly Gln Pro Gly Arg Gly
                    195                 200                 205
    Ala Pro His Val Pro Asp Asp Gly Arg Pro Gly Arg Asp Ala Pro His
                    210                 215                 220
    Phe Pro Asp Gly Val Ala Ala Gly Gln Arg Leu Gln Ser Arg His Phe
    225                 230                 235                 240
    Gly Arg Pro Arg Gln Ala Gly Gly Arg Trp Arg Leu
                    245                 250
```

<210> 4220

<211> 101

<212> PRT

<213> Homo sapiens

<400> 4220

```
Met Leu Leu Val Ala Met Phe Gly Leu Trp Gly Asp Arg Cys Phe Leu
1               5                   10                  15
Phe Thr Ser Leu Cys Phe Leu Leu Phe Ser Ala Met Asn Phe Cys Phe
                20                  25                  30
Ile Ile Arg Asn Asn Ser Arg Tyr Phe Lys Leu His Asn Glu Ile Asn
            35                  40                  45
Asn Leu Gly His Thr Lys Phe Val Met Asp Ser Glu Leu Gln Gly Thr
        50                  55                  60
Gly Gln Pro Tyr Gln Ala Gln Pro Pro Ser Pro Ala Ala Val Gly His
65                  70                  75                  80
Arg Ile Leu Ser Lys Trp Val Gln Met Glu Ile Pro Val Gln Trp Leu
                85                  90                  95
Tyr Ser Asp Val Asp
                100
```

<210> 4221
<211> 343
<212> PRT
<213> Homo sapiens

<400> 4221

```
Met Ile Gln Glu Pro Ala Leu Pro Pro Gly Trp Glu Met Lys Tyr Thr
1               5                   10                  15
Ser Glu Gly Val Arg Tyr Phe Val Asp His Asn Thr Arg Thr Thr Thr
                20                  25                  30
Phe Lys Asp Pro Arg Pro Gly Phe Glu Ser Gly Thr Lys Gln Gly Ser
            35                  40                  45
Pro Gly Ala Tyr Asp Arg Ser Phe Arg Trp Lys Tyr His Gln Phe Arg
        50                  55                  60
Phe Leu Cys His Ser Asn Ala Leu Pro Ser His Val Lys Ile Ser Val
65                  70                  75                  80
Ser Arg Gln Thr Leu Phe Glu Asp Ser Phe Gln Gln Ile Met Asn Met
```

```
                      85                    90                    95
Lys Pro Tyr Asp Leu Arg Arg Arg Leu Phe Ile Ile Met Arg Gly Glu
            100                   105                   110
Glu Gly Leu Asp Tyr Gly Gly Ile Ala Arg Glu Trp Phe Phe Leu Leu
            115                   120                   125
Ser His Glu Val Leu Asn Pro Met Tyr Cys Leu Phe Glu Tyr Ala Gly
        130                   135                   140
Lys Asn Asn Tyr Cys Leu Gln Ile Asn Pro Ala Ser Ser Ile Asn Pro
145                   150                   155                   160
Asp His Leu Thr Tyr Phe Arg Phe Ile Gly Arg Phe Ile Ala Met Ala
                165                   170                   175
Leu Tyr His Gly Lys Phe Ile Asp Thr Gly Phe Thr Leu Pro Phe Tyr
            180                   185                   190
Lys Arg Met Leu Asn Lys Arg Pro Thr Leu Lys Asp Leu Glu Ser Ile
            195                   200                   205
Asp Pro Glu Phe Tyr Asn Ser Ile Val Trp Ile Lys Glu Asn Asn Leu
        210                   215                   220
Glu Glu Cys Gly Leu Glu Leu Tyr Phe Ile Gln Asp Met Glu Ile Leu
225                   230                   235                   240
Gly Lys Val Thr Thr His Glu Leu Lys Glu Gly Gly Glu Ser Ile Arg
                245                   250                   255
Val Thr Glu Glu Asn Lys Glu Glu Tyr Ile Met Leu Leu Thr Asp Trp
            260                   265                   270
Arg Phe Thr Arg Gly Val Glu Glu Gln Thr Lys Ala Phe Leu Asp Gly
            275                   280                   285
Phe Asn Glu Val Ala Pro Leu Glu Trp Leu Arg Tyr Phe Asp Glu Lys
            290                   295                   300
Glu Leu Glu Leu Met Leu Cys Gly Met Gln Glu Ile Asp Arg Ala Thr
305                   310                   315                   320
Gly Arg Arg Ala Pro Ser Thr Gly Thr Thr Pro Arg Thr Ala Ser Arg
                325                   330                   335
Ser Ser Gly Ser Gly Arg Trp
            340
```

<210> 4222

<211> 209

<212> PRT

<213> Homo sapiens

<400> 4222

Met Arg Trp Arg Ala Asp Gly Arg Ser Leu Glu Lys Leu Pro Val His
1   5   10   15

Met Gly Leu Val Ile Thr Glu Val Glu Gln Glu Pro Ser Phe Ser Asp
            20   25   30

Ile Ala Ser Leu Val Val Trp Cys Met Ala Val Gly Ile Ser Tyr Ile
            35   40   45

Ser Val Tyr Asp His Gln Gly Ile Phe Lys Arg Asn Asn Ser Arg Leu
        50   55   60

Met Asp Glu Ile Leu Lys Gln Gln Gln Glu Leu Leu Gly Leu Asp Cys
65   70   75   80

Ser Lys Tyr Ser Pro Glu Phe Ala Asn Ser Asn Asp Lys Asp Asp Gln
                85   90   95

Val Leu Asn Cys His Leu Ala Val Lys Val Leu Ser Pro Glu Asp Gly
            100   105   110

Lys Ala Asp Ile Val Arg Ala Ala Gln Asp Phe Cys Gln Leu Val Ala
            115   120   125

Gln Lys Gln Lys Arg Pro Thr Asp Leu Asp Val Asp Thr Leu Ala Ser
        130   135   140

Leu Leu Ser Ser Asn Gly Cys Pro Asp Pro Asp Leu Val Leu Lys Phe
145   150   155   160

Gly Pro Val Asp Ser Thr Leu Gly Phe Leu Pro Trp His Ile Arg Leu
                165   170   175

Thr Glu Ile Val Ser Leu Pro Ser His Leu Asn Ile Ser Tyr Glu Asp
                180   185   190

Phe Phe Ser Ala Leu Arg Gln Tyr Ala Ala Cys Glu Gln Arg Leu Gly
            195   200   205

Lys

<210> 4223

<211> 102

<212> PRT

<213> Homo sapiens

<400> 4223

Met Gly Val Gly Asn Ile Ala Gly Ser Glu Ser Ser Glu Val Gly Met

1   5   10   15

Glu Val Ser Gln Leu Arg Leu Gly Pro Phe Cys Arg Ala Leu Ser Val

                20   25   30

Tyr Ser Trp Phe Ser Ile Arg Gly Gln Pro Ala Gly Gly Leu Glu Asn

            35   40   45

Arg Ser Leu Gly Thr Lys Gln Gly Leu Cys Pro Gly Ala Cys Tyr Val

        50   55   60

Ala Gln Pro Thr Arg Leu Ser Pro Arg Gln Ser Cys Pro Lys Pro Arg

65   70   75   80

Lys Leu Met Tyr His Pro Arg Gly Arg Glu Pro Thr Phe Pro Ser Lys

                85   90   95

Glu Val Phe Tyr Leu Trp

            100

<210> 4224

<211> 885

<212> PRT

<213> Homo sapiens

<400> 4224

Met Gln Glu Ala Ile Ile Leu Leu Ala Leu Leu Gly Ala Met Ser Gly

1   5   10   15

Gly Glu Ala Leu His Leu Ile Leu Leu Pro Ala Thr Gly Asn Val Ala

                20   25   30

Glu Asn Ser Pro Pro Gly Thr Ser Val His Lys Phe Ser Val Lys Leu

            35   40   45

Ser Ala Ser Leu Ser Pro Val Ile Pro Gly Phe Pro Gln Ile Val Asn

        50   55   60

Ser Asn Pro Leu Thr Glu Ala Phe Arg Val Asn Trp Leu Ser Gly Thr

```
        65                    70                    75                    80
Tyr Phe Glu Val Val Thr Thr Gly Met Glu Gln Leu Asp Phe Glu Thr
                    85                    90                    95
Gly Pro Asn Ile Phe Asp Leu Gln Ile Tyr Val Lys Asp Glu Val Gly
                   100                   105                   110
Val Thr Asp Leu Gln Val Leu Thr Val Gln Val Thr Asp Val Asn Glu
                   115                   120                   125
Pro Pro Gln Phe Gln Gly Asn Leu Ala Glu Gly Leu His Leu Tyr Ile
                   130                   135                   140
Val Glu Arg Ala Asn Pro Gly Phe Ile Tyr Gln Val Glu Ala Phe Asp
145                   150                   155                   160
Pro Glu Asp Thr Ser Arg Asn Ile Pro Leu Ser Tyr Phe Leu Ile Ser
                   165                   170                   175
Pro Pro Lys Ser Phe Arg Met Ser Ala Asn Gly Thr Leu Phe Ser Thr
                   180                   185                   190
Thr Glu Leu Asp Phe Glu Ala Gly His Arg Ser Phe His Leu Ile Val
                   195                   200                   205
Glu Val Arg Asp Ser Gly Gly Leu Lys Ala Ser Thr Glu Leu Gln Val
                   210                   215                   220
Asn Ile Val Asn Leu Asn Asp Glu Val Pro Arg Phe Thr Ser Pro Thr
225                   230                   235                   240
Arg Val Tyr Thr Val Leu Glu Glu Leu Ser Pro Gly Thr Ile Val Ala
                   245                   250                   255
Asn Ile Thr Ala Glu Asp Pro Asp Asp Glu Gly Phe Pro Ser His Leu
                   260                   265                   270
Leu Tyr Ser Ile Thr Thr Val Ser Lys Tyr Phe Met Ile Asn Gln Leu
                   275                   280                   285
Thr Gly Thr Ile Gln Val Ala Gln Arg Ile Asp Arg Asp Ala Gly Glu
                   290                   295                   300
Leu Arg Gln Asn Pro Thr Ile Ser Leu Glu Val Leu Val Lys Asp Arg
305                   310                   315                   320
Pro Tyr Gly Gly Gln Glu Asn Arg Ile Gln Ile Thr Phe Ile Val Glu
                   325                   330                   335
Asp Val Asn Asp Asn Pro Ala Thr Cys Gln Lys Phe Thr Phe Ser Ile
                   340                   345                   350
Met Val Pro Glu Arg Thr Ala Lys Gly Thr Leu Leu Leu Asp Leu Asn
```

```
            355                    360                    365
Lys Phe Cys Phe Asp Asp Asp Ser Glu Ala Pro Asn Asn Arg Phe Asn
        370                    375                    380
Phe Thr Met Pro Ser Gly Val Gly Ser Gly Ser Arg Phe Leu Gln Asp
385                    390                    395                    400
Pro Ala Gly Ser Gly Lys Ile Val Leu Ile Gly Asp Leu Asp Tyr Glu
                    405                    410                    415
Asn Pro Ser Asn Leu Ala Ala Gly Asn Lys Tyr Thr Val Ile Ile Gln
                    420                    425                    430
Val Gln Asp Val Ala Pro Pro Tyr Tyr Lys Asn Asn Val Tyr Val Tyr
                    435                    440                    445
Ile Leu Thr Ser Pro Glu Asn Glu Phe Pro Leu Ile Phe Asp Arg Pro
        450                    455                    460
Ser Tyr Val Phe Asp Val Ser Glu Arg Arg Pro Ala Arg Thr Arg Val
465                    470                    475                    480
Gly Gln Val Arg Ala Thr Asp Lys Asp Leu Pro Gln Ser Ser Leu Leu
                    485                    490                    495
Tyr Ser Ile Ser Thr Gly Gly Ala Ser Leu Gln Tyr Pro Asn Val Phe
                    500                    505                    510
Trp Ile Asn Pro Lys Thr Gly Glu Leu Gln Leu Val Thr Lys Val Asp
        515                    520                    525
Cys Glu Thr Thr Pro Ile Tyr Ile Leu Arg Ile Gln Ala Thr Asn Asn
        530                    535                    540
Glu Asp Thr Ser Ser Val Thr Val Thr Val Asn Ile Leu Glu Glu Asn
545                    550                    555                    560
Asp Glu Lys Pro Ile Cys Thr Pro Asn Ser Tyr Phe Leu Ala Leu Pro
                    565                    570                    575
Val Asp Leu Lys Val Gly Thr Asn Ile Gln Asn Phe Lys Leu Thr Cys
                    580                    585                    590
Thr Asp Leu Asp Ser Ser Pro Arg Ser Phe Arg Tyr Ser Ile Gly Pro
                    595                    600                    605
Gly Asn Val Asn Asn His Phe Thr Phe Ser Pro Asn Ala Gly Ser Asn
        610                    615                    620
Val Thr Arg Leu Leu Leu Thr Ser Arg Phe Asp Tyr Ala Gly Gly Phe
625                    630                    635                    640
Asp Lys Ile Trp Asp Tyr Lys Leu Leu Val Tyr Val Thr Asp Asp Asn
```

```
                    645                    650                    655
Leu Met Ser Asp Arg Lys Lys Ala Glu Ala Leu Val Glu Thr Gly Thr
                660                    665                    670
Val Thr Leu Ser Ile Lys Val Ile Pro His Pro Thr Thr Ile Ile Thr
                675                    680                    685
Thr Thr Pro Arg Pro Arg Val Thr Tyr Gln Val Leu Arg Lys Asn Val
            690                    695                    700
Tyr Ser Pro Ser Ala Trp Tyr Val Pro Phe Val Ile Thr Leu Gly Ser
705                    710                    715                    720
Ile Leu Leu Leu Gly Leu Leu Val Tyr Leu Val Val Leu Leu Ala Lys
                    725                    730                    735
Ala Ile His Arg His Cys Pro Cys Lys Thr Gly Lys Asn Lys Glu Pro
                740                    745                    750
Leu Thr Lys Lys Gly Glu Thr Lys Thr Ala Glu Arg Asp Val Val Val
                755                    760           ·        765
Glu Thr Ile Gln Met Asn Thr Ile Phe Asp Gly Glu Ala Ile Asp Pro
            770                    775                    780
Val Thr Gly Glu Thr Tyr Glu Phe Asn Ser Lys Thr Gly Ala Arg Lys
785                    790                    795                    800


Trp Lys Asp Pro Leu Thr Gln Met Pro Lys Trp Lys Glu Ser Ser His
                    805                    810                    815
Gln Gly Ala Ala Pro Arg Arg Val Thr Ala Gly Glu Gly Met Gly Ser
                820                    825                    830
Leu Arg Ser Ala Asn Trp Glu Glu Asp Glu Leu Ser Gly Lys Ala Trp
                835                    840                    845
Ala Glu Asp Ala Gly Leu Gly Ser Arg Asn Glu Gly Gly Lys Leu Gly
            850                    855                    860
Asn Pro Lys Asn Arg Asn Pro Ala Phe Met Asn Arg Ala Tyr Pro Lys
865                    870                    875                    880
Pro His Pro Gly Lys
                    885
```

<210> 4225

<211> 106

<212> PRT

<213> Homo sapiens

<400> 4225

Met Asp Asn Pro Leu Leu Lys Tyr Ser Ala Lys Asp Tyr Phe Phe Lys
1   5   10   15

Ala Ala Leu Cys His Phe Ile Val Asp Glu Leu Asn Val Lys Leu Ala
            20   25   30

Leu Glu Lys Tyr Glu Glu Met Phe Pro Ala Phe Thr Asp Ser Arg Glu
            35   40   45

Cys Lys Leu Leu Lys Lys Leu Leu Glu Ala His Glu Glu Gln Asn Ser
        50   55   60

Glu Ala Tyr Thr Glu Ala Val Lys Glu Phe Asp Ser Ile Ser Arg Leu
65   70   75   80

Asp Gln Trp Leu Thr Thr Met Leu Leu Arg Ile Lys Lys Ser Ile Gln
                85   90   95

Gly Asp Gly Glu Gly Asp Gly Asp Leu Lys
            100   105

<210> 4226

<211> 403

<212> PRT

<213> Homo sapiens

<400> 4226

Met Asn Asn Asn Met Ser Leu Gln Asp Ala Glu Trp Tyr Trp Gly Asp
1   5   10   15

Ile Ser Arg Glu Glu Val Asn Glu Lys Leu Arg Asp Thr Ala Asp Gly
            20   25   30

Thr Phe Leu Val Arg Asp Ala Ser Thr Lys Met His Gly Asp Tyr Thr
            35   40   45

Leu Thr Leu Arg Lys Gly Gly Asn Asn Lys Leu Ile Lys Ile Phe His
        50   55   60

Arg Asp Gly Lys Tyr Gly Phe Ser Asp Pro Leu Thr Phe Ser Ser Val

```
65                      70                      75                      80
Val Glu Leu Ile Asn His Tyr Arg Asn Glu Ser Leu Ala Gln Tyr Asn
                85                      90                      95
Pro Lys Leu Asp Val Lys Leu Leu Tyr Pro Val Ser Lys Tyr Gln Gln
                100                     105                     110
Asp Gln Val Val Lys Glu Asp Asn Ile Glu Ala Val Gly Lys Lys Leu
                115                     120                     125
His Glu Tyr Asn Thr Gln Phe Gln Glu Lys Ser Arg Glu Tyr Asp Arg
        130                     135                     140
Leu Tyr Glu Glu Tyr Thr Arg Thr Ser Gln Glu Ile Gln Met Lys Arg
145                     150                     155                     160
Thr Ala Ile Glu Ala Phe Asn Glu Thr Ile Lys Ile Phe Glu Glu Gln
                165                     170                     175
Cys Gln Thr Gln Glu Arg Tyr Ser Lys Glu Tyr Ile Glu Lys Phe Lys
                180                     185                     190
Arg Glu Gly Asn Glu Lys Glu Ile Gln Arg Ile Met His Asn Tyr Asp
        195                     200                     205
Lys Leu Lys Ser Arg Ile Ser Glu Ile Ile Asp Ser Arg Arg Arg Leu
        210                     215                     220
Glu Glu Asp Leu Lys Lys Gln Ala Ala Glu Tyr Arg Glu Ile Asp Lys
225                     230                     235                     240
Arg Met Asn Ser Ile Lys Pro Asp Leu Ile Gln Leu Arg Lys Thr Arg
                245                     250                     255
Asp Gln Tyr Leu Met Trp Leu Thr Gln Lys Gly Val Arg Gln Lys Lys
                260                     265                     270
Leu Asn Glu Trp Leu Gly Asn Glu Asn Thr Glu Asp Gln Tyr Ser Leu
        275                     280                     285
Val Glu Asp Asp Glu Asp Leu Pro His His Asp Glu Lys Thr Trp Asn
        290                     295                     300
Val Gly Ser Ser Asn Arg Asn Lys Ala Glu Asn Leu Leu Arg Gly Lys
305                     310                     315                     320
Arg Asp Gly Thr Phe Leu Val Arg Glu Ser Ser Lys Gln Gly Cys Tyr
                325                     330                     335
Ala Cys Ser Val Val Val Asp Gly Glu Val Lys His Cys Val Ile Asn
        340                     345                     350
Lys Thr Ala Thr Gly Tyr Gly Phe Ala Glu Pro Tyr Asn Leu Tyr Ser
```

```
                355                     360                     365
Ser Leu Lys Glu Leu Val Leu His Tyr Gln His Thr Ser Leu Val Gln
        370                     375                     380
His Asn Asp Ser Leu Asn Val Thr Leu Ala Tyr Pro Val Tyr Ala Gln
385                     390                     395                     400
Gln Arg Arg
```

<210> 4227

<211> 369

<212> PRT

<213> Homo sapiens

<400> 4227

```
Met Leu Trp Glu Glu Thr Gly Ala Ala Pro Ala Pro Ala Arg Ala Ser
    1                   5                       10                      15
Asp Leu Pro Tyr Arg Ile Ser Ser Asp His Leu Lys Lys Glu Glu Lys
                    20                      25                      30
Met Thr Met Met Ala His Gln Tyr Pro Ser Trp Ile Phe Ile Asn Glu
                35                      40                      45
Lys Thr Phe Ile Thr Arg Glu Gln Leu Asn Ser Leu Leu Lys Thr Tyr
        50                      55                      60
Asn Ile Phe Tyr Glu Asn Gln Lys Asn Leu His Ile Leu Tyr Gly Glu
65                      70                      75                      80
Thr Glu Asp Gly Lys Leu Ile Val Glu Gly Met Leu Asp Ile Phe Trp
                    85                      90                      95
Gly Val Lys Arg Pro Ile Gln Leu Lys Ile Gln Asp Glu Lys Pro Phe
                    100                     105                     110
Ser Ser Phe Thr Ser Met Lys Ser Ser Asp Val Phe Ser Ser Lys Gly
                115                     120                     125
Met Thr Arg Trp Gly Glu Phe Asp Asp Leu Tyr Arg Ile Ser Glu Leu
        130                     135                     140
Asp Arg Thr Gln Ile Pro Met Ser Glu Lys Arg Asn Ser Gln Glu Asp
145                     150                     155                     160
Tyr Leu Ser Tyr His Ser Asn Thr Leu Lys Pro His Ala Lys Asp Glu
```

			165				170				175			
Pro	Asp	Ser	Pro	Val	Leu	Tyr	Arg	Thr	Met	Ser	Glu	Ala	Ala	Leu	Val

Pro Asp Ser Pro Val Leu Tyr Arg Thr Met Ser Glu Ala Ala Leu Val
              180   185   190
Arg Lys Arg Met Lys Pro Leu Met Met Asp Arg Lys Glu Arg Gln Lys
          195   200   205
Asn Arg Ala Ser Ile Asn Gly His Phe Tyr Asn His Glu Thr Ser Ile
      210   215   220
Phe Ile Pro Ala Phe Glu Ser Glu Thr Lys Val Arg Val Asn Ser Asn
225   230   235   240
Met Arg Thr Glu Glu Val Ile Lys Gln Leu Leu Gln Lys Phe Lys Ile
                  245   250   255
Glu Asn Ser Pro Gln Asp Phe Ala Leu His Ile Ile Phe Ala Thr Gly
              260   265   270
Glu Gln Arg Arg Leu Lys Lys Thr Asp Ile Pro Leu Leu Gln Arg Leu
          275   280   285
Leu Gln Gly Pro Ser Glu Lys Asn Ala Arg Ile Phe Leu Met Asp Lys
      290   295   300
Asp Ala Glu Glu Ile Ser Ser Asp Val Ala Gln Tyr Ile Asn Phe His
305   310   315   320
Phe Ser Leu Leu Glu Ser Ile Leu Gln Arg Leu Asn Glu Glu Glu Lys
                  325   330   335
Arg Glu Ile Gln Arg Ile Val Thr Lys Phe Asn Lys Glu Lys Ala Ile
              340   345   350
Ile Leu Lys Cys Leu Gln Asn Lys Leu Val Ile Lys Thr Glu Thr Thr
          355   360   365
Val

```
     1               5                    10                   15
   Ala Ala Val Leu Pro Ile Gly His Thr Val Gln Gly Ala Ser Lys Ala
                   20                  25                   30
   Thr Lys His Thr Pro Gln Pro Ser Gly Cys Leu Trp Leu Thr Thr Cys
                   35                  40                   45
   Leu Glu Thr Phe Thr Leu Gly His Met Ile Phe Leu Pro Thr His Pro
           50                  55                  60
   Leu Pro Pro Pro Ser Gly Arg Cys Gln Gln Arg Ala Pro Trp Glu Pro
   65                  70                  75                   80
   Gly Leu Leu Val Glu Ala Trp Leu Glu Gly Arg Val Ser Leu Glu Trp
                   85                  90                   95
   Thr Asp Ala Leu Pro Pro Leu Gln Ser Leu Thr Ala Ala Ala Pro Ser
               100                 105                  110
   Gln Met Gln Asn
               115
```

<210> 4229

<211> 325

<212> PRT

<213> Homo sapiens

<400> 4229

```
   Met Leu Cys Pro Trp Arg Thr Ala Asn Leu Gly Leu Leu Leu Ile Leu
     1               5                    10                   15
   Thr Ile Phe Leu Val Ala Ala Ser Ser Ser Leu Cys Met Asp Glu Lys
                   20                  25                   30
   Gln Ile Thr Gln Asn Tyr Ser Lys Val Leu Ala Glu Val Asn Thr Ser
                   35                  40                   45
   Trp Pro Val Lys Met Ala Thr Asn Ala Val Leu Cys Cys Pro Pro Ile
           50                  55                  60
   Ala Leu Arg Asn Leu Ile Ile Ile Thr Trp Glu Ile Ile Leu Arg Gly
   65                  70                  75                   80
   Gln Pro Ser Cys Thr Lys Ala Tyr Arg Lys Glu Thr Asn Glu Thr Lys
                   85                  90                   95
   Glu Thr Asn Cys Thr Asp Glu Arg Ile Thr Trp Val Ser Arg Pro Asp
```

```
            100                    105                    110
Gln Asn Ser Asp Leu Gln Ile Arg Pro Val Ala Ile Thr His Asp Gly
         115                    120                    125
Tyr Tyr Arg Cys Ile Met Val Thr Pro Asp Gly Asn Phe His Arg Gly
     130                    135                    140
Tyr His Leu Gln Val Leu Val Thr Pro Glu Val Thr Leu Phe Gln Asn
145                    150                    155                    160
Arg Asn Arg Thr Ala Val Cys Lys Ala Val Ala Gly Lys Pro Ala Ala
                 165                    170                    175
Gln Ile Ser Trp Ile Pro Glu Gly Asp Cys Ala Thr Lys Gln Glu Tyr
                 180                    185                    190
Trp Ser Asn Gly Thr Val Thr Val Lys Ser Thr Cys His Trp Glu Val
             195                    200                    205
His Asn Val Ser Thr Val Thr Cys His Val Ser His Leu Thr Gly Asn
     210                    215                    220
Lys Ser Leu Tyr Ile Glu Leu Leu Pro Val Pro Gly Ala Lys Lys Ser
225                    230                    235                    240
Ala Lys Leu Tyr Ile Pro Tyr Ile Ile Leu Thr Ile Ile Ile Leu Thr
                 245                    250                    255
Ile Val Gly Phe Ile Trp Leu Leu Lys Val Asn Gly Cys Arg Lys Tyr
                 260                    265                    270
Lys Leu Asn Lys Thr Glu Ser Thr Pro Val Val Glu Glu Asp Glu Met
         275                    280                    285
Gln Pro Tyr Ala Ser Tyr Thr Glu Lys Asn Asn Pro Leu Tyr Asp Thr
     290                    295                    300
Thr Asn Lys Val Lys Ala Ser Gln Ala Leu Gln Ser Glu Val Asp Thr
305                    310                    315                    320
Asp Leu His Thr Leu
                 325
```

<400> 4230

Met His Ser Thr Gln Asp Lys Ser Leu His Leu Glu Gly Asp Pro Asn
1   5   10   15

Pro Ser Ala Ala Pro Thr Ser Thr Cys Ala Pro Arg Lys Met Pro Lys
            20   25   30

Arg Ile Ser Ile Ser Lys Gln Leu Ala Ser Val Lys Ala Leu Arg Lys
        35   40   45

Cys Ser Asp Leu Glu Lys Ala Ile Ala Thr Thr Ala Leu Ile Phe Arg
    50   55   60

Asn Ser Ser Asp Ser Asp Gly Lys Leu Glu Lys Ala Ile Ala Lys Asp
65   70   75   80

Leu Leu Gln Thr Gln Phe Arg Asn Phe Ala Glu Pro Cys Glu Asp Ser
                85   90   95

Arg Arg Ser Trp Pro Ser Ala Lys Leu Glu Glu Ser Thr Leu Ser Arg
            100   105   110

His Trp Ile
        115

<210> 4231

<211> 155
<212> PRT
<213> Homo sapiens

<400> 4231

Met Ala Ala Leu Ile Cys Pro Ala Ser Pro Gln His Phe Pro Phe Leu
1   5   10   15

His Ser Phe Trp Asp Pro Thr Trp Leu Leu Ser His Leu Ala Thr Ser
            20   25   30

Gln Thr His Leu Pro Met Gly Thr Ser Arg Ser Ala Pro Gly Pro Val
        35   40   45

Leu Ser Ser Ser Leu His Ser Pro Arg Cys Leu Leu Leu Leu Val Phe
    50   55   60

Asn Thr Thr Tyr Gly His Arg Ala Ile Gly Trp His Thr Ser Ala Phe

```
    65                      70                      75                      80
Ser Pro Asp Cys Ser Leu Glu Leu Arg Ile Leu Phe Ser Asn Ala Phe
                        85                      90                      95
Leu Thr Leu Ala His Arg Gln Leu Ile Arg Leu Leu Lys Leu Asp Ile
                       100                     105                     110
Val Lys Thr Leu Ser Cys Ser Pro Phe Gln Ala Phe Leu Ser Leu Pro
               115                     120                     125
Pro Ile Asn Ser Thr Ser Val Leu Ala Ala Asp Pro Ala Lys Asp Leu
           130                     135                     140
Gly Val Ser Leu Phe Pro Pro Phe Pro Arg Ser
145                     150                     155
```

<210> 4232

<211> 490

<212> PRT

<213> Homo sapiens

<400> 4232

```
Met Asp Leu Met Cys Lys Lys Met Lys His Leu Trp Phe Phe Leu Leu
  1               5                      10                      15
Leu Val Ala Ala Pro Gly Trp Val Leu Ser Gln Leu Gln Leu Gln Glu
                   20                      25                      30
Ser Gly Pro Gly Leu Val Lys Pro Ser Glu Thr Leu Ser Leu Thr Cys
               35                      40                      45
Ser Val Ser Gly Ala Ser Met Thr Thr Ser Glu Tyr Tyr Trp Ala Trp
           50                      55                      60
Ile Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile Gly Asn Ile Phe
65                      70                      75                      80
Tyr Thr Gly Arg Thr Phe Tyr Asn Pro Ser Leu Lys Ser Arg Leu Ser
                       85                      90                      95
Leu Ser Ile Asp Thr Ala Thr Ser Gln Phe Ser Leu Ser Leu Arg Ser
               100                     105                     110
Val Thr Ala Ala Asp Thr Ala Ile Tyr Phe Cys Ala Arg His Leu Asn
               115                     120                     125
Thr Val Thr Ile Tyr Arg Gln Pro Phe Asp His Trp Gly Gln Gly Ala
```

```
          130                      135                      140
Leu Val Thr Val Ser Ser Ala Ser Pro Thr Ser Pro Lys Val Phe Pro
145                      150                      155                      160
Leu Ser Leu Asp Ser Thr Pro Gln Asp Gly Asn Val Val Val Ala Cys
                    165                      170                      175
Leu Val Gln Gly Phe Phe Pro Gln Glu Pro Leu Ser Val Thr Trp Ser
                    180                      185                      190
Glu Ser Gly Gln Asn Val Thr Ala Arg Asn Phe Pro Pro Ser Gln Asp
                    195                      200                      205
Ala Ser Gly Asp Leu Tyr Thr Thr Ser Ser Gln Leu Thr Leu Pro Ala
          210                      215                      220
Thr Gln Cys Pro Asp Gly Lys Ser Val Thr Cys His Val Lys His Tyr
225                      230                      235                      240
Thr Asn Pro Ser Gln Asp Val Thr Val Pro Cys Pro Val Pro Pro Pro
                    245                      250                      255
Pro Pro Cys Cys His Pro Arg Leu Ser Leu His Arg Pro Ala Leu Glu
                    260                      265                      270
Asp Leu Leu Leu Gly Ser Glu Ala Asn Leu Thr Cys Thr Leu Thr Gly
                    275                      280                      285
Leu Arg Asp Ala Ser Gly Ala Thr Phe Thr Trp Thr Pro Ser Ser Gly
          290                      295                      300
Lys Ser Ala Val Gln Gly Pro Pro Glu Arg Asp Leu Cys Gly Cys Tyr
305                      310                      315                      320
Ser Val Ser Ser Val Leu Pro Gly Cys Ala Gln Pro Trp Asn His Gly
                    325                      330                      335
Glu Thr Phe Thr Cys Thr Ala Ala His Pro Glu Leu Lys Thr Pro Leu
                    340                      345                      350
Thr Ala Asn Ile Thr Lys Ser Gly Asn Thr Phe Arg Pro Glu Val His
                    355                      360                      365 .
Leu Leu Pro Pro Pro Ser Glu Glu Leu Ala Leu Asn Glu Leu Val Thr
          370                      375                      380
Leu Thr Cys Leu Ala Arg Gly Phe Ser Pro Lys Asp Val Leu Val Arg
385                      390                      395                      400
Trp Leu Gln Gly Ser Gln Glu Leu Pro Arg Glu Lys Tyr Leu Thr Trp
                    405                      410                      415
Ala Ser Arg Gln Glu Pro Ser Gln Gly Thr Thr Thr Phe Ala Val Thr
```

```
                420                    425                        430
Ser Ile Leu Arg Val Ala Ala Glu Asp Trp Lys Lys Gly Asp Thr Phe
              435                    440                    445   .
Ser Cys Met Val Gly His Glu Ala Leu Pro Leu Ala Phe Thr Gln Lys
          450                    455                    460
Thr Ile Asp Arg Leu Ala Gly Lys Pro Thr His Val Asn Val Ser Val
465                    470                    475                    480
Val Met Ala Glu Val Asp Gly Thr Cys Tyr
              485                    490
```

<210> 4233

<211> 1543

<212> PRT

<213> Homo sapiens

<400> 4233

```
Met Leu Glu Thr Gly Tyr Val Ile Thr Asp Gln Thr Arg Asp Glu Met
  1                 5                    10                    15
Ser Ile Glu Ser Phe Leu Gly Arg Ser Ser Cys Ile Ala Glu Ile His
              20                    25                    30
Thr Asp Leu Asp His Thr Gly Tyr Asn Glu Pro Arg Lys Asn His Ser
              35                    40                    45
Glu Trp Lys Ile Thr Leu Lys Glu Met Ala Gln Ile Arg Arg Lys Cys
          50                    55                    60
Glu Met Phe Thr Tyr Leu Arg Phe Asp Ser Glu Ile Thr Ile Val Val
65                    70                    75                    80
Ser Val Ala Ser Lys Gln Gly Asp Asn Gly His Val Val Ile Gln Tyr
                  85                    90                    95
Met Tyr Val Pro Pro Gly Ala Pro Ile Pro Lys Thr Arg Asp Asp Tyr
              100                    105                    110
Thr Trp Gln Ser Gly Thr Asn Ala Ser Val Phe Trp Gln Gln Gly Gln
              115                    120                    125
Pro Tyr Pro Arg Phe Thr Ile Pro Phe Met Ser Ile Ala Ser Ala Tyr
          130                    135                    140
Tyr Met Phe Tyr Asp Gly Tyr Glu Asp Asp Asn Gly Thr Thr Tyr Gly
```

```
145                    150                   155                    160
Ala Ala Val Thr Asn Asp Met Gly Thr Leu Cys Val Arg Ile Val Thr
               165             170                   175
Glu Gln Gln Lys Asn Glu Val Lys Ile Thr Ser Arg Val Tyr His Lys
           180                 185                 190
Ala Lys His Ile Ser Ala Trp Cys Pro Arg Pro Pro Arg Ala Val Ala
               195             200                 205
Tyr Gln His Thr Tyr Ser Pro Asn Phe Val Pro Pro Thr Gly Ala Val
       210                 215                 220
Gln Thr His Ile Lys Phe Arg Pro Asn Val Lys Asp Val Thr Ser Val
225                 230                 235                    240
Met Thr Ala Gly Pro Ser Asp Leu Tyr Val His Ser Ser Asn Phe Ile
               245                 250                 255
Tyr Arg Asn Leu His Leu Cys Glu Pro Glu Asn Leu Asn Asp Ser Val
               260                 265                 270
Leu Ile Ser Tyr Ser Ser Asp Leu Val Ile Tyr Arg Thr Asn Thr Thr
           275                 280                 285
Gly Asp Asp Ile Ile Pro Thr Cys Asp Cys Thr Leu Gly Thr Tyr Tyr
           290                 295                 300
Cys Lys His Lys Asp Arg Tyr Tyr Pro Ile Ser Val Thr Lys His Gln
305                 310                 315                    320
Trp Tyr Glu Ile Gln Glu Ser Asp Tyr Tyr Pro Lys His Ile Gln Tyr
               325                 330                 335
Asn Ile Leu Leu Gly Val Gly Pro Cys Lys Pro Gly Asp Cys Gly Gly
           340                 345                 350
Lys Leu Leu Cys Lys His Gly Val Ile Gly Ile Ile Thr Ala Gly Gly
           355                 360                 365
Asp Asn His Val Ala Phe Ile Asp Leu Arg Asp Phe Gln Val Ala Glu
       370                 375                 380
Glu Gln Gly Ile Pro Glu Tyr Ile His Ser Leu Gly Glu Ala Phe Gly
385                 390                 395                    400
Ser Gly Phe Val Asp Asn Ile Lys Asp Gln Ile Gln Thr Ile Asn Pro
               405                 410                 415
Ile Asn Lys Ile Ser Ser Lys Ile Val Lys Trp Val Ile Arg Ile Ile
           420                 425                 430
Ser Ala Ile Thr Ile Ile Ile Arg Asn Asn Ala Asp Pro His Thr Ile
```

```
            435                     440                     445
Ile Ala Thr Leu Ala Leu Leu Gly Cys Ser Gly Ser Pro Trp Arg Phe
     450                     455                     460
Ile Lys Glu Lys Val Cys Gly Trp Leu Gln Leu Asn Tyr Ile His Lys
465                     470                     475                     480
Glu Ser Asp Gly Trp Ile Lys Lys Phe Thr Glu Met Cys Asn Ala Ala
                    485                     490                     495
Arg Gly Leu Glu Trp Leu Gly Asn Lys Ile Ser Lys Phe Ile Asp Trp
                    500                     505                     510
Leu Lys Ser Met Leu Pro Gln Ala Arg Leu Lys Val Asp Phe Ile Lys
                    515                     520                     525
Asn Leu Lys Gln Leu Pro Leu Leu Glu Lys Gln Val Asp Gly Leu Arg
     530                     535                     540
Leu Ala Thr Gln Lys Gln Gln Gln Glu Tyr Ile Asp Thr Leu Thr Leu
545                     550                     555                     560
Met Leu Asp Ser Ser Asn Lys Phe Leu Pro Leu Tyr Ala Leu Glu Asn
                    565                     570                     575
Lys Arg Ile Lys Glu Leu Leu Lys Arg Gly Gln Met Ile Leu Arg Thr
                    580                     585                     590
Ser Lys Arg Thr Glu Pro Val Gly Val Ile Phe His Gly Glu Pro Gly
                    595                     600                     605
Thr Gly Lys Ser Ile Thr Thr Ser Ile Leu Ala Arg Met Leu Thr Ser
     610                     615                     620
Glu Ser Asp Ile Tyr Ser Leu Pro Pro Ser Pro Lys Tyr Phe Asp Gly
625                     630                     635                     640
Tyr Asp Gln Gln Ser Val Val Ile Met Asp Asp Ile Met Gln Asn Pro
                    645                     650                     655
Ser Gly Glu Asp Met Ser Leu Phe Cys Gln Met Val Ser Ser Val Pro
                    660                     665                     670
Phe Ile Pro Pro Met Ala Asp Leu Pro Asp Lys Gly Lys Pro Phe Ser
                    675                     680                     685
Ser Asp Tyr Val Leu Ala Ser Thr Asn His Thr Leu Leu His Pro Pro
     690                     695                     700
Thr Ile Thr Cys Thr Thr Ala Met Asn Arg Arg Phe Phe Leu Asp Leu
705                     710                     715                     720
Asp Ile Ile Val Lys Asp Asp Tyr Lys Leu Gly Gln Gly Lys Leu Asn
```

                        725   730   735
Leu Gln Cys Ala Leu Lys Pro Cys Lys Glu Gly Lys Ile Gly Asn Ala
                740   745   750
Lys Cys Cys Pro Leu Ile Cys Gly Lys Ala Leu Gln Phe Arg Asp Arg
            755   760   765
Ser Asn Gly Glu His Leu Ser Leu Ala Thr Ile Tyr Asn Arg Ile Thr
        770   775   780
Gln Glu Ser Lys Asn Arg Lys Glu Leu Thr Asn Ser Leu Gln Ala Ile
785   790   795   800
Phe Gln Gly Pro Ile Asp Ile Val Asn Lys Pro Pro Pro Pro Ala Ile
                805   810   815
Val Asp Leu Leu Lys Ser Val Arg Ser Pro Asp Val Ile Arg Tyr Cys
            820   825   830
Glu Glu Asn Lys Trp Ile Ile Pro Ala Asp Cys Arg Leu Glu Arg Asp
            835   840   845
Leu Asn Tyr Ala Asn Val Ile Ile Ser Met Ile Ala Asn Val Ile Ser
        850   855   860
Ile Met Gly Val Ile Tyr Ile Ile Tyr Lys Leu Phe Cys Ser Leu Gln
865   870   875   880
Gly Pro Tyr Ser Gly Glu Pro Lys Pro Val Thr Arg Lys Pro Glu Arg
                885   890   895
Arg Val Val Thr Gln Gly Pro Gln Glu Glu Phe Gly Arg Ser Leu Met
            900   905   910
Lys His Asn Thr Cys Val Val Thr Thr Asn Asn Gly Lys Phe Thr Gly
            915   920   925
Leu Gly Ile Tyr Asp Asn Val Met Ile Ile Pro Thr His Ala Asp Ala
        930   935   940
Gly Gln Glu Val Glu Val Asp Gly Ile Lys Thr Lys Val Ser Asp Ala
945   950   955   960
Tyr Asp Leu Tyr Asn Thr Gln Gly Val Lys Leu Glu Ile Thr Val Leu
                965   970   975
Lys Leu Asn Arg Asn Glu Lys Phe Arg Asp Ile Arg Lys Tyr Ile Pro
            980   985   990
Glu Ser Glu Asp Asp Tyr Ser Glu Cys Cys Leu Ala Leu Val Ala Asn

        995   1000   1005

Gln Val Glu Pro Thr Ile Leu Glu Val Gly Asp Cys Cys Ser Tyr Gly
1010   1015   1020

Asn Ile Leu Leu Ser Gly Asn Gln Thr Ala Arg Met Ile Lys Tyr Asn
1025   1030   1035   1040

Tyr Pro Thr Lys Ser Gly Phe Cys Gly Gly Val Leu Tyr Lys Ile Gly
              1045   1050   1055

Leu Ile Leu Gly Ile His Val Gly Gly Asn Gly Arg Asp Gly Phe Ser
              1060   1065   1070

Ala Met Leu Leu Arg Ser Tyr Phe Asn Glu Gln Gln Gly Lys Ile Val
              1075   1080   1085

Ser Lys Ala Asp Val Lys Glu His Asn Leu Tyr Ser Ile His Thr Pro
   1090   1095   1100

Thr Lys Thr Lys Leu Gln Pro Ser Val Phe His Asp Val Phe Pro Gly
1105   1110   1115   1120

Ser Lys Glu Pro Ala Val Leu Ser Thr Arg Asp Pro Arg Leu Glu Val
              1125   1130   1135

Asp Leu Asp Ser Ser Ile Phe Ser Lys Tyr Lys Gly Asn Glu Ala Val
              1140   1145   1150

Lys Ile Ser Glu Asn Met Leu Val Ala Ala Ala His Tyr Thr Ala Gln
         1155   1160   1165

Leu Thr Thr Leu Asp Ile Asp Pro Gln Pro Ile Ser Leu Glu Asp Ser
   1170   1175   1180

Val Tyr Gly Ile Glu Gly Leu Glu Ala Leu Asp Leu His Thr Ser Ala
1185   1190   1195   1200

Gly Tyr Pro Tyr Thr Ala His Gly Ile Lys Lys Lys Asp Leu Ile Pro
              1205   1210   1215

Lys Asp Lys Asn Leu Thr Lys Leu Lys Ile Ala Met Glu Lys Tyr Gly
         1220   1225   1230

Leu Asp Leu Pro Met Ile Thr Phe Leu Lys Asp Glu Leu Arg Lys Pro
         1235   1240   1245

Glu Lys Ile Ser Thr Gly Lys Thr Arg Ile Ile Glu Ala Ser Ser Leu
   1250   1255   1260

Asn Asp Thr Val Gln Phe Arg Met Ala Phe Gly Asn Leu Phe Ser Lys
1265   1270   1275   1280

Phe His Lys Asn Pro Gly Ile Val Thr Gly Ser Ala Val Gly Cys Asp
              1285   1290   1295

```
Pro Glu Val Phe Trp Ser Lys Ile Pro Val Met Leu Asp Gly Asp Cys
          1300              1305              1310
Leu Met Ala Phe Asp Tyr Ser Asn Tyr Asp Gly Ser Leu Asn Pro Val
          1315              1320              1325
Trp Phe Glu Leu Leu Glu Arg Val Leu Asn Asp Leu Gly Phe Pro Gly
      1330              1335              1340
Lys Leu Val Asn Lys Leu Cys His Ser Lys His Ile Tyr Lys Thr Thr
1345              1350              1355              1360
Tyr Tyr Glu Val Glu Gly Gly Met Pro Ser Gly Cys Ala Gly Thr Ser
              1365              1370              1375
Ile Phe Asn Ser Met Ile Asn Asn Ile Ile Ile Arg Thr Leu Val Leu
          1380              1385              1390
Asp Thr Tyr Lys Tyr Ile Asn Leu Asp Lys Leu Lys Ile Leu Ala Tyr
          1395              1400              1405
Gly Asp Asp Val Leu Phe Ser Tyr Pro Tyr Asp Leu Asp Met Ala Glu
      1410              1415              1420
Leu Ala Lys Glu Gly Asn Lys Tyr Gly Leu Thr Ile Thr Pro Ala Asp
1425              1430              1435              1440
Lys Ser Asp Lys Phe Glu Lys Leu Asn Tyr Glu Asn Ala Thr Phe Leu
          1445              1450              1455
Lys Arg Gly Phe Lys Gln Asp Asp Arg Tyr Lys Phe Leu Ile His Pro
          1460              1465              1470
Ile Tyr Pro Glu Ser Glu Val Trp Glu Ser Ile Arg Trp Thr Lys Ser
          1475              1480              1485
Pro Arg Asn Met Gln Glu His Val Leu Ser Leu Cys His Leu Met Trp
          1490              1495              1500
His Asn Gly Lys Asp Lys Tyr Asp Ser Phe Val Asn Lys Ile Arg Ser
1505              1510              1515              1520
Val Ser Ala Gly Arg Ala Leu Tyr Ile Pro Pro Tyr Glu Leu Leu Leu
          1525              1530              1535
His Glu Trp Tyr Glu Lys Phe
          1540
```

<212> PRT

<213> Homo sapiens

<400> 4234

Met Gln Ser Val Gln Lys Met Phe Lys Cys His Pro Asp Glu Val Met
1   5   10   15

Ser Ile Arg Thr Thr Asn Arg Glu Tyr Phe Leu Ile Gly His Asp Arg
                20   25   30

Glu Lys Ile Lys Asp Trp Val Ser Phe Met Ser Ser Phe Arg Gln Asp
            35   40   45

Ile Lys Ala Thr Gln Gln Asn Thr Glu Glu Glu Leu Ser Leu Gly Asn
        50   55   60

Lys Arg Thr Leu Phe Tyr Ser Ser Pro Leu Leu Gly Pro Ser Ser Thr
65   70   75   80

Ser Glu Ala Val Gly Ser Ser Ser Pro Arg Asn Gly Leu Gln Asp Lys
                85   90   95

His Leu Met Glu Gln Ser Ser Pro Gly Phe Arg Gln Thr His Leu Gln
                100   105   110

Asp Leu Ser Glu Ala Thr Gln Asp Val Lys Glu Glu Asn His Tyr Leu
            115   120   125

Thr Pro Arg Ser Val Leu Leu Glu Leu Asp Asn Ile Ile Ala Ser Ser
        130   135   140

Asp Ser Gly Glu Ser Ile Glu Thr Asp Gly Pro Asp Gln Val Ser Gly
145   150   155   160

Arg Ile Glu Cys His Tyr Glu Pro Met Glu Ser Tyr Phe Phe Lys Glu
                165   170   175

Thr Ser His Glu Ser Val Asp Ser Ser Lys Glu Glu Pro Gln Thr Leu
                180   185   190

Pro Glu Thr Gln Asp Gly Asp Leu His Leu Gln Glu Gln Gly Ser Gly
            195   200   205

Ile Asp Trp Cys Leu Ser Pro Ala Asp Val Glu Ala Gln Thr Thr Asn
        210   215   220

Asp Gln Lys Gly Asn Ile Pro Asp Glu Ser Gln Val Glu Lys Leu Asn
225   230   235   240

Val Phe Leu Ser Pro Pro Asp Val Ile Asn Tyr Leu Ala Leu Thr Glu
                245   250   255

Ala Thr Gly Arg Ile Cys Val Ser Gln Trp Glu Gly Pro Pro Arg Leu
          260   265   270

Gly Cys Ile Phe Cys His Gly Asp His Leu Leu Ala Val Asn Asp Leu
          275   280   285

Lys Pro Gln Ser Leu Glu Glu Val Ser Leu Phe Leu Thr Arg Ser Ile
        290   295   300

Gln Lys Glu Lys Leu Lys Leu Thr Ile Gly Arg Ile Pro Asn Ser Glu
305   310   315   320

Thr Phe His Ala Ala Ser Cys Met Cys Pro Ser Lys Cys Gln Ser Ala
          325   330   335

Ala Pro Ser Gln Leu Asp Lys Pro Arg Leu Asn Arg Ala Pro Lys Arg
          340   345   350

Ser Pro Ala Ile Lys Lys Ser Gln Gln Lys Gly Ala Arg Glu
          355   360   365

<210> 4235

<211> 213

<212> PRT

<213> Homo sapiens

<400> 4235

Met Lys Pro Pro Met Ser Trp Trp Lys Ala Tyr Leu Leu Ser Ile Ser
1   5   10   15

His Ala Lys Lys Ala Gly Thr Cys Ile His Phe Ser Lys Arg Glu Asn
          20   25   30

Glu Ile Gln Arg Ser Ile Val Thr Cys Pro Lys Ser His Ser Trp His
          35   40   45

Ser Asp Pro Asn Leu Ser Lys Ser Lys Ala Trp Val Leu Pro Leu Gln
          50   55   60

Arg Gly Gln Pro Gln Pro Ala Phe Leu His Arg Leu Arg Gln Arg Tyr
65   70   75   80

Met Leu Cys Pro Leu Arg Ala Leu Leu Leu Gln Thr Tyr Phe Val Lys
          85   90   95

Met Ala Gln Pro Gly Cys Leu Gly Asp Arg Lys Pro His Asn Gly Arg
          100   105   110

```
Thr Lys Glu Gly Ala Val Gly Leu Ser Thr Ser Ile Lys Thr Asn Arg
        115             120             125
Pro Thr Arg Ser Thr Arg Leu Pro Ser Thr Ala Asp Leu Glu Ile Lys
        130             135             140
Ser Phe Arg Arg Ala Leu Leu Ser Leu Ser Ile Arg Tyr Lys Ile Ser
145             150             155             160
Ser Pro Leu Ser Cys Trp Gly Tyr Leu Asp Ser Leu Ser Phe Ser Gly
                165             170             175
Val Pro Val Tyr Lys Thr Pro Glu Arg Ala Gln Trp Leu Thr Pro Ile
            180             185             190
Ile Pro Ala Leu Trp Glu Ala Lys Ala Gly Arg Ser Pro Glu Ala Gly
        195             200             205
Ser Ser Arg Ser Ala
    210
```

<210> 4236

<211> 125

<212> PRT

<213> Homo sapiens

<400> 4236

```
Met Glu Thr Trp Gly Gly Arg Lys Leu Ser Arg Asp Thr Val Pro Pro
  1               5               10              15
Cys Ile Thr Glu Met Pro Gly Gln Ser Asp Leu Pro Gln Glu Ala Ser
            20              25              30
Pro Ala Ala Pro Val Pro Glu Met Ser Gly Glu Arg Ala Ser Arg Glu
        35              40              45
Ala Gly Ala Trp Ala Lys Arg Gly Ala Thr Gln Phe Phe Gln Asn Ile
        50              55              60
Pro Val Trp Pro Met Asp Thr Gly Leu Leu Met Ser Arg Glu Gly Leu
65              70              75              80
Leu Ser Ser Ser Arg Thr Phe Gln Cys Gly Pro Trp Thr Pro Ala Phe
                85              90              95
Trp Gly Pro Phe Cys Pro Val Ser Leu Gln Leu Met Ser Cys Leu Arg
            100             105             110
```

Pro Glu Leu Pro Lys Ser Arg Thr Ala His Tyr Leu Leu
      115   120   125

<210> 4237

<211> 331

<212> PRT

<213> Homo sapiens

<400> 4237

Met Ile Arg Lys Asn Asn Tyr Thr Leu Pro Ser Arg Ile Ser Phe Phe
  1   5   10   15

Cys Ser Leu Pro Thr Phe Cys Ser Asn His Ile Asn Lys Ser Cys Phe
       20   25   30

Phe Phe Ala Val Cys Ile Ala Ser Gly Thr Lys Val Ala Leu Phe Asn
       35   40   45

Arg Leu Arg Ser Gln Thr Val Ser Thr Arg Tyr Leu His Val Glu Gly
     50   55   60

Gly Asn Phe His Ala Ser Ser Gln Gln Trp Gly Ala Phe Phe Ile His

65   70   75   80

Leu Leu Asp Asp Asp Glu Ser Glu Gly Glu Glu Phe Thr Val Arg Asp
            85   90   95

Gly Tyr Ile His Tyr Gly Gln Thr Val Lys Leu Val Cys Ser Val Thr
       100   105   110

Gly Met Ala Leu Pro Arg Leu Ile Ile Arg Lys Val Asp Lys Gln Thr
       115   120   125

Ala Leu Leu Asp Ala Asp Asp Pro Val Ser Gln Leu His Lys Cys Ala
       130   135   140

Phe Tyr Leu Lys Asp Thr Glu Arg Met Tyr Leu Cys Leu Ser Gln Glu
145   150   155   160

Arg Ile Ile Gln Phe Gln Ala Thr Pro Cys Pro Lys Glu Pro Asn Lys
       165   170   175

Glu Met Ile Asn Asp Gly Ala Ser Trp Thr Ile Ile Ser Thr Asp Lys
       180   185   190

Leu Asn Gly Gly Gly Asp Val Ala Met Leu Glu Leu Thr Gly Gln Asn

```
              195                     200                     205
Phe Thr Pro Asn Leu Arg Val Trp Phe Gly Asp Val Glu Ala Glu Thr
        210                     215                     220
Met Tyr Arg Cys Gly Glu Ser Met Leu Cys Val Val Pro Asp Ile Ser
225                     230                     235                     240
Ala Phe Arg Glu Gly Trp Arg Trp Val Arg Gln Pro Val Gln Val Pro
                    245                     250                     255
Val Thr Leu Val Arg Asn Asp Gly Ile Ile Tyr Ser Thr Ser Leu Thr
                    260                     265                     270
Phe Thr Tyr Thr Pro Glu Pro Gly Pro Arg Pro His Cys Ser Ala Ala
                    275                     280                     285
Gly Ala Ile Leu Arg Ala Asn Ser Ser Gln Val Pro Pro Asn Glu Ser
        290                     295                     300
Asn Thr Asn Ser Glu Gly Ser Tyr Thr Asn Ala Ser Thr Asn Ser Thr
305                     310                     315                     320
Ser Val Thr Ser Ser Thr Ala Thr Val Val Ser
                    325                     330
```

<210> 4238

<211> 298

<212> PRT

<213> Homo sapiens

<400> 4238

```
Met Leu Leu Gly Ser Val Glu Gly Gln Ala Gly Ala Arg Gln Leu Ser
  1                   5                      10                      15
Ser Leu Ala Asn Gly Ala Thr Glu Asp Ser Lys Gln Asp Leu Cys Ser
                20                      25                      30
Arg Leu His Cys Leu Trp Val Glu Pro Arg Glu Ile Asp Asn Ile Arg
            35                      40                      45
Pro Phe Arg Ala Lys Thr Asn Ala Ser Phe Ala Gly Cys Ser Leu Thr
        50                      55                      60
Glu Arg Leu Leu Gly Gly Leu Cys Arg Gly Trp Met Ser Arg Gly His
65                      70                      75                      80
Pro Pro Glu Pro Ala Trp Gly Pro Gly Ser Glu Ala Ile Gly Pro Val
```

                        85   90   95
Val Ser Arg Phe Ser Cys Arg Leu Gly Glu Arg Gly Gly Ser Arg Asn
                100   105   110

Thr Glu Glu Val Lys Arg Gln Ser Arg Gly Asp Gly Val Pro Gln Arg
                115   120   125

Arg Arg Ser Thr Glu Ala Glu Val Gln Ala Cys Arg His Val Asp His
            130   135   140

Glu Tyr Ser Ala Arg Ser Val Gly Val Ser Ser Glu Leu His Gln Phe
145   150   155   160

Pro Gly Tyr Leu Gly Pro Trp Ile Thr Leu Arg Ser Ala Thr Cys Gln
                165   170   175

Leu Ile Ser Lys Leu Leu Leu Ala Gly Leu Arg Leu Ser Arg Glu His
                180   185   190

Leu Gly Glu Pro Cys Ala Ala Gly Trp Thr Pro Ala His Leu Ala Asp
                195   200   205

Tyr Ser Cys Phe Cys Ser Pro Val Cys Pro Gln Glu Val Arg Ala Cys
            210   215   220

Leu Leu Phe Leu His Asp His Gly Arg Arg Gly Thr Asn Met Arg Val
225   230   235   240

Leu Ala Ser Pro Gln Trp Trp Leu Pro Arg Ala Gly Glu Thr Leu Gly
                245   250   255

Glu Gly Leu Gly Gln Gly Pro Leu Ser Leu Ala Ala Thr Ala Trp Val
                260   265   270

Asn Cys Leu Ala Gly Leu Ala Ala Arg Ala Gln Lys Ala Glu Ala Leu
                275   280   285

Pro Ala Phe Ser Ser His Pro Ala Pro Met
                290   295

<210> 4239
<211> 517
<212> PRT
<213> Homo sapiens

<400> 4239
Met Asp Leu Gly Leu Tyr Trp Val Phe Leu Val Ala Ile Leu Glu Gly

		1				5					10					15	

```
        1                   5                       10                      15
Val Glu Cys Glu Val Gln Leu Glu Gln Ser Gly Gly Gly Leu Val Lys
                20                      25                      30
Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Ser Leu
            35                      40                      45
Ser Pro Tyr Glu Val Asn Trp Val Arg Arg Ala Pro Gly Lys Gly Leu
        50                      55                      60
Glu Trp Ile Ala Tyr Ile Ser Ser Ser Gly Ser Lys Arg Tyr Tyr Gly
65                      70                      75                      80
Asp Ser Val Thr Gly Arg Val Ser Ile Ser Arg Asp Ser Ala Gln Asn
                85                      90                      95
Ser Val Ser Leu Gln Met Ser Gly Leu Arg Val Glu Asp Thr Gly Val
            100                     105                     110
Tyr Tyr Cys Ala Arg Val Asp Trp Asn His Phe Tyr Phe Phe Met Asp
            115                     120                     125
Val Trp Gly Lys Gly Thr Thr Val Ile Val Ser Ala Ala Ser Thr Lys
        130                     135                     140
Gly Pro Ser Val Phe Pro Leu Ala Pro Cys Ser Arg Ser Thr Ser Gly
145                     150                     155                     160
Gly Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro
                165                     170                     175
Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr
            180                     185                     190
Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val
            195                     200                     205
Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Thr Cys Asn
        210                     215                     220
Val Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Arg Val Glu Leu
225                     230                     235                     240
Lys Thr Pro Leu Gly Asp Thr Thr His Thr Cys Pro Arg Cys Pro Glu
                245                     250                     255
Pro Lys Ser Cys Asp Thr Pro Pro Pro Cys Pro Arg Cys Pro Glu Pro
            260                     265                     270
Lys Ser Cys Asp Thr Pro Pro Pro Cys Pro Arg Cys Pro Glu Pro Lys
            275                     280                     285
Ser Cys Asp Thr Pro Pro Pro Cys Pro Arg Cys Pro Ala Pro Glu Leu
```

```
            290                 295                 300
Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr
305                 310                 315                 320
Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val
                    325                 330                 335
Ser His Glu Asp Pro Glu Val Gln Phe Lys Trp Tyr Val Asp Gly Val
                340                 345                 350
Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser
                355                 360                 365
Thr Phe Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu
        370                 375                 380
Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala
385                 390                 395                 400
Pro Ile Glu Lys Thr Ile Ser Lys Thr Lys Gly Gln Pro Arg Glu Pro
                    405                 410                 415
Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln
                420                 425                 430
Val Ile Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala
            435                 440                 445
Val Glu Trp Glu Ser Ser Gly Gln Pro Glu Asn Asn Tyr Asn Thr Thr
            450                 455                 460
Pro Pro Met Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu
465                 470                 475                 480
Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Ile Phe Ser Cys Ser
                    485                 490                 495
Val Met His Glu Ala Leu His Asn Arg Phe Thr Gln Lys Ser Leu Ser
                500                 505                 510
Leu Ser Pro Gly Lys
            515
```

<210> 4240

<211> 426

<212> PRT

<213> Homo sapiens

<400> 4240

Met Ala Thr Glu Phe Ile Lys Ser Cys Cys Gly Gly Cys Phe Tyr Gly
1   5   10   15

Glu Thr Glu Lys His Asn Phe Ser Val Glu Arg Asp Phe Lys Ala Ala
                20   25   30

Val Pro Asn Ser Gln Asn Ala Thr Ile Ser Val Pro Pro Leu Thr Ser
            35   40   45

Val Ser Val Lys Pro Gln Leu Gly Cys Thr Glu Gly Tyr Leu Leu Ser
        50   55   60 .

Lys Leu Pro Ser Asp Gly Lys Glu Val Pro Phe Val Val Pro Lys Phe
65   70   75   80

Lys Leu Ser Tyr Ile Gln Pro Arg Thr Gln Glu Thr Pro Ser His Leu
                85   90   95

Glu Glu Leu Glu Gly Ser Ala Arg Ala Ser Phe Gly Asp Arg Lys Val
            100   105   110

Glu Leu Ser Ser Ser Ser Gln His Gly Pro Ser Tyr Asp Val Tyr Asn
        115   120   125

Pro Phe Tyr Met Tyr Gln His Ile Ser Pro Asp Leu Ser Arg Arg Phe
        130   135   140

Pro Pro Arg Ser Glu Val Thr Arg Leu Tyr Gly Ser Val Cys Asp Leu
145   150   155   160

Arg Thr Asn Lys Leu Pro Gly Ser Pro Gly Leu Ser Lys Ser Met Phe
                165   170   175

Asp Leu Thr Asn Ser Ser Gln Arg Phe Ile Gln Arg His Asp Ser Leu
            180   185   190

Ser Ser Val Pro Ser Ser Ser Ser Ser Arg Lys Asn Ser Gln Gly Ser
        195   200   205

Asn Arg Ser Leu Asp Thr Ile Thr Leu Ser Gly Asp Glu Arg Asp Phe
        210   215   220

Gly Arg Leu Asn Val Lys Leu Phe Tyr Asn Ser Ser Val Glu Gln Ile
225   230   235   240

Trp Ile Thr Val Leu Gln Cys Arg Asp Leu Ser Trp Pro Ser Ser Tyr
                245   250   255

Gly Asp Thr Pro Thr Val Ser Ile Lys Gly Ile Leu Thr Leu Pro Lys
            260   265   270

Pro Val His Phe Lys Ser Ser Ala Lys Glu Gly Ser Asn Val Cys His

```
              275               280                    285
Ala Glu Leu Glu Leu Gly Thr Cys Phe Gln Ala Val Asn Ser Arg Ile
        290               295               300
Gln Leu Gln Ile Leu Glu Ala Arg Tyr Leu Pro Ser Ser Ser Thr Pro
305               310               315                    320
Leu Thr Leu Ser Phe Phe Val Lys Val Gly Met Phe Ser Ser Gly Glu
                325               330               335
Leu Ile Tyr Lys Lys Lys Thr Arg Leu Leu Lys Ala Ser Asn Gly Arg
              340               345               350
Val Lys Trp Gly Glu Thr Met Ile Phe Pro Leu Ile Gln Ser Glu Lys
        355               360               365
Glu Ile Val Phe Leu Ile Lys Leu Tyr Ser Arg Ser Ser Val Arg Arg
        370               375               380
Lys His Phe Val Gly Gln Ile Trp Ile Ser Glu Asp Ser Asn Asn Ile
385               390               395                    400
Glu Ala Val Asn Gln Trp Lys Glu Thr Val Ile Asn Pro Glu Lys Val
                405               410                    415
Val Ile Arg Trp His Lys Leu Asn Pro Ser
              420               425
```

<210> 4241

<211> 114

<212> PRT

<213> Homo sapiens

<400> 4241

```
Met Asn Glu Arg Gln Gly Leu Ala Leu Leu Pro Arg Leu Gln Cys Ser

  1               5               10                    15
Gly Lys Ile Ser Ala His Cys Ser Leu Lys His Leu Gly Ser Ser Asp
                20               25               30
Pro Pro Thr Phe Ala Ser Gln Val Ala Gly Thr Thr Gly Val His Gln
          35               40               45
His Val Tyr Leu Ile Phe Val Phe Phe Val Glu Met Gly Ser His Asn
        50               55               60
```

Val Val Gln Ala Gly Leu Lys His Leu Gly Ser Ser Asp Pro Pro Thr
65   70   75   80

Ser Ala Ser Gln Ser Ala Gly Ile Ile Gly Leu Ser His Gln Ala Thr
                85   90   95

Arg Pro Val Cys Leu Phe Ile Tyr Leu Gln Ser Leu Thr Leu Leu Pro
                100   105   110

Arg Leu

<210> 4242

<211> 117

<212> PRT

<213> Homo sapiens

<400> 4242

Met Leu Leu Ala Lys His Val Val Lys His Tyr Gly Gln Gln Met Lys
   1   5   10   15

Leu Ser Met Lys His Gln Leu Pro Lys Met Lys Thr Phe His Glu Pro
                20   25   30

Thr Thr Ile Leu Gly Asn Ser Leu Pro Lys Cys Thr Glu Ile Lys Pro
                35   40   45

Glu Val Asn Thr Leu Thr Ala Glu Asn Lys Leu Trp Asp Asp Ala Lys
        50   55   60

Asn Gly Phe Ala Arg Cys Thr Ala Ala Glu Ile Gln Arg Phe Ala Phe
65   70   75   80

Ser Ala Thr Gly Leu Leu Ser His Val Glu Glu Gly Leu Asp Ser Asp
                85   90   95

Ala Thr Asp Ser Ser Ser Asp Asp Asp Leu Asp Glu Tyr Thr Leu Arg
                100   105   110

Lys Asn Val Ala Val
        115

<210> 4243

<211> 118

<212> PRT

<213> Homo sapiens

<400> 4243

Met Gly Leu Leu Ala Phe Arg Asp Val Ala Leu Glu Phe Ser Pro Glu
 1   5   10   15

Glu Trp Glu Cys Leu Asp Pro Ala Gln Arg Ser Leu Tyr Arg Asp Val
                20   25   30

Met Leu Glu Asn Tyr Arg Asn Leu Ile Ser Leu Gly Leu Ala Met Ser
            35   40   45

Lys Pro Glu Leu Ile Ile Cys Leu Glu Ala Arg Lys Glu Pro Trp Asn
         50   55   60

Val Asn Thr Glu Lys Thr Ala Lys His Ser Val Ala Thr Arg Phe Arg
65   70   75   80

His Val Gly Gln Ala Gly Leu Lys Leu Leu Thr Ser Gly Asp Pro Pro
                85   90   95

Ala Leu Ala Ser Gln Ser Ala Gly Ile Thr Gly Thr Gly His His Cys
            100   105   110

Gln Pro Ile Cys Val Phe
         115

<210> 4244

<211> 251

<212> PRT

<213> Homo sapiens

<400> 4244

Met Ser Gly Ser Asn Pro Lys Ala Ala Ala Ala Ala Ser Ala Ala Gly
 1   5   10   15

Pro Gly Gly Leu Val Ala Gly Lys Glu Glu Lys Lys Lys Ala Gly Gly
                20   25   30

Gly Val Leu Asn Arg Leu Lys Ala Arg Arg Gln Ala Pro His His Ala
            35   40   45

Ala Asp Asp Gly Val Gly Ala Ala Val Thr Glu Gln Glu Leu Leu Ala
         50   55   60

Leu Asp Thr Ile Arg Pro Glu His Val Leu Arg Leu Ser Trp Val Thr
  65   70   75   80

Glu Asn Tyr Leu Cys Lys Pro Glu Asp Asn Ile Tyr Ser Ile Asp Phe
              85   90   95

Thr Arg Phe Lys Ile Arg Asp Leu Glu Thr Gly Thr Val Leu Phe Glu
          100   105   110

Ile Ala Lys Pro Cys Val Ser Asp Gln Glu Glu Asp Glu Glu Glu Gly
          115   120   125

Gly Gly Asp Val Asp Ile Ser Ala Gly Arg Phe Val Arg Tyr Gln Phe

        130   135   140

Thr Pro Ala Phe Leu Arg Leu Arg Thr Val Gly Ala Thr Val Glu Phe
145   150   155   160

Thr Val Gly Asp Lys Pro Val Ser Asn Phe Arg Met Ile Glu Arg His
          165   170   175

Tyr Phe Arg Glu His Leu Leu Lys Asn Phe Asp Phe Asp Phe Gly Phe
          180   185   190

Cys Ile Pro Ser Ser Arg Asn Thr Cys Glu His Ile Tyr Glu Phe Pro
          195   200   205

Gln Leu Ser Glu Asp Val Ile Arg Leu Met Ile Glu Asn Pro Tyr Glu
          210   215   220

Thr Arg Ser Asp Ser Phe Tyr Phe Val Asp Asn Lys Leu Ile Met His
225   230   235   240

Asn Lys Ala Asp Tyr Ala Tyr Asn Gly Gly Gln
          245   250

<210> 4245

<211> 139

<212> PRT

<213> Homo sapiens

<400> 4245

Met Glu Phe Ala Val Phe Cys Leu Arg Arg Arg Arg Met Gly Arg Gln
   1   5   10   15

Val Ser Cys Pro Val Gly Leu Gly Val Ile Val Gly Val Thr Leu His

```
                20                      25                      30
Leu Asn Leu Ser Ala Leu Pro Ser Ser Ser Ser Ala Ser Ala Trp Ser
            35                      40                      45
Glu Thr Leu Ser Leu Trp Lys Val Thr Pro Gly Arg Ile His Leu Leu
        50                      55                      60
Ser Cys Phe His His Gly Ile Leu Ala Cys Ala Gly Val Ser Pro Ser
65                      70                      75                      80
Ser Ser Ser Cys Ala Leu Arg Ile His Cys Cys Trp Tyr Ala Leu Ser
                85                      90                      95
Ser Ala Leu Glu Leu Ala Gln Val Pro Leu Asp Ile His Thr Thr Asn
            100                     105                     110
Ser Leu Ala Leu Gln Arg Trp Thr Arg Cys Leu Phe Asn Ser Leu Tyr
        115                     120                     125
Cys His Phe His Pro Ser Glu Ala Phe Cys Ser
        130                     135
```

<210> 4246

<211> 127

<212> PRT

<213> Homo sapiens

<400> 4246

```
Met Asp Lys Lys Ile Ser Ile Leu Lys Asp His Gly Tyr Ile Glu Asn
 1                       5                      10                      15
Leu Thr Phe Gly Trp Asp Gly Pro Ser Trp Arg Leu Leu Thr Ala Leu
                20                      25                      30
Lys Leu Leu Cys Leu Glu Ala Glu Lys Phe Thr Cys Trp Lys Lys Val
            35                      40                      45
Leu Leu Gly Glu Val Ile Ser Asp Thr Asn Glu Lys Thr Ser Leu Asp
        50                      55                      60
Ile Ala Gln Lys Ile Cys Tyr Tyr Phe Ile Glu Glu Thr Asn Ala Val
65                      70                      75                      80
Leu Gln Lys Val Ser His Met Lys Asp Glu Lys Glu Ala Leu Ile Asn
                85                      90                      95
Gln Leu Thr Leu Val Glu Ser Leu Trp Thr Glu Glu Leu Lys Ile Leu
```

```
                 100                    105                    110
Arg Ala Ser Ala Glu Thr Leu His Ser Leu Gln Thr Ala Phe Thr
             115                    120                    125
```

<210> 4247

<211> 282

<212> PRT

<213> Homo sapiens

<400> 4247

```
Met Arg Gln Leu Leu Ser Gln Pro Arg Ser Lys Thr Met Cys Leu Lys
  1                   5                    10                    15
Cys Asp Leu Gln Glu Arg Leu Leu Cys Pro Ser Leu Leu Ala Gly Thr
                  20                    25                    30
Ala Asp Gly Ser Leu Arg Met Asp Asp Pro Lys Gly Asp Phe Ile Thr
              35                    40                    45
Leu Tyr Gln Met Ala Ser Gln Ser Ser Ala Ser His Tyr Lys Leu Gln
          50                    55                    60
Val Ile Lys Ala Leu Lys Ser Ser Gly Leu Cys Glu Ser Leu Thr Tyr
 65                    70                    75                    80
Gly Leu Pro Phe Ile Leu Arg Pro Thr Ser Cys Trp Gln Leu Asp Trp
                  85                    90                    95
Asp Glu Leu Glu Thr Asn Gln Gln His Phe His Ala Leu Cys His Ser
                  100                   105                   110
Leu Leu Lys Arg Glu Trp Leu Leu Leu Ala Lys Gly Glu Pro Pro Gly
              115                   120                   125
Pro Gly His Ser Gln Arg Ile Pro Ala Ser Thr Phe Tyr Val Ile Met
          130                   135                   140
Pro Ser His Ser Leu Thr Leu Leu Val Lys Ala Val Ala Thr Arg Glu
145                   150                   155                   160
Leu Met Leu Pro Ser Thr Phe Pro Leu Leu Pro Glu Asp Pro His Asp
                  165                   170                   175
Asp Ser Leu Lys Asn Val Glu Ser Met Leu Asp Ser Leu Glu Leu Glu
              180                   185                   190
Pro Thr Tyr Asn Pro Leu His Val Gln Ser His Leu Tyr Ser His Leu
```

```
            195                200                205
Ser Ser Ile Tyr Ala Lys Pro Gln Gly Arg Leu His Pro His Trp Glu
    210                215                220
Ser Arg Ala Pro Arg Lys Thr Gly Gln Leu Gln Thr Asn Arg Ala Arg
225                230                235                240
Ala Thr Val Ala Pro Leu Pro Met Thr Pro Val Pro Gly Arg Ala Ser
                245                250                255
Lys Met Pro Ala Ala Ser Lys Ser Ser Ser Asp Ala Phe Phe Leu Pro
                260                265                270
Ser Glu Trp Glu Lys Asp Pro Ser Arg Pro
            275                280
```

<210> 4248

<211> 391

<212> PRT

<213> Homo sapiens

<400> 4248

```
Met Gly Leu Tyr Ala Ala Ala Ala Gly Val Leu Ala Gly Val Glu Ser
    1                5                10                15
Arg Gln Gly Ser Ile Lys Gly Leu Val Tyr Ser Ser Asn Phe Gln Asn
                20                25                30
Val Lys Gln Leu Tyr Ala Leu Val Cys Glu Thr Gln Arg Tyr Ser Ala
            35                40                45   ·
Val Leu Asp Ala Val Ile Ala Ser Ala Gly Leu Leu Arg Ala Glu Lys
        50                55                60
Lys Leu Arg Pro His Leu Ala Lys Val His Arg Gly Val Ser Arg Asn
65                70                75                80
Glu Asp Leu Leu Glu Val Gly Ser Arg Pro Gly Pro Ala Ser Gln Leu
                85                90                95
Pro Arg Phe Val Arg Val Asn Thr Leu Lys Thr Cys Ser Asp Asp Val
                100                105                110
Val Asp Tyr Phe Lys Arg Gln Gly Phe Ser Tyr Gln Gly Arg Ala Ser
            115                120                125
```

Ser Leu Asp Asp Leu Arg Ala Leu Lys Gly Lys His Phe Leu Leu Asp
    130   135   140

Pro Leu Met Pro Glu Leu Leu Val Phe Pro Ala Gln Thr Asp Leu His

145   150   155   160

Glu His Pro Leu Tyr Arg Ala Gly His Leu Ile Leu Gln Asp Arg Ala
             165   170   175

Ser Cys Leu Pro Ala Met Leu Leu Asp Pro Pro Pro Gly Ser His Val
           180   185   190

Ile Asp Ala Cys Ala Ala Pro Gly Asn Lys Thr Ser His Leu Ala Ala
        195   200   205

Leu Leu Lys Asn Gln Gly Lys Ile Phe Ala Phe Asp Leu Asp Ala Lys
        210   215   220

Arg Leu Ala Ser Met Ala Thr Leu Leu Ala Arg Ala Gly Val Ser Cys
225   230   235   240

Cys Glu Leu Ala Glu Glu Asp Phe Leu Ala Val Ser Pro Ser Asp Pro
           245   250   255

Arg Tyr His Glu Val His Tyr Ile Leu Leu Asp Pro Ser Cys Ser Gly
           260   265   270

Ser Gly Met Pro Ser Arg Gln Leu Glu Glu Pro Gly Ala Gly Thr Pro
         275   280   285

Ser Pro Val Arg Leu His Ala Leu Ala Gly Phe Gln Gln Arg Ala Leu
        290   295   300

Cys His Ala Leu Thr Phe Pro Ser Leu Gln Arg Leu Val Tyr Ser Thr
305   310   315   320

Cys Ser Leu Cys Gln Glu Glu Asn Glu Asp Val Val Arg Asp Ala Leu
           325   330   335

Gln Gln Asn Pro Gly Ala Phe Arg Leu Ala Pro Ala Leu Pro Ala Trp
         340   345   350

Pro His Arg Gly Leu Ser Thr Phe Pro Gly Ala Glu His Cys Leu Arg
        355   360   365

Ala Ser Pro Glu Thr Thr Leu Ser Ser Gly Phe Phe Val Ala Val Ile
        370   375   380

Glu Arg Ala Glu Val Pro Arg
385   390

<210> 4249

<211> 507

<212> PRT

<213> Homo sapiens

<400> 4249

Met Glu Phe Leu Leu Gly Asn Pro Phe Ser Thr Pro Val Gly Gln Cys
1   5   10   15

Leu Glu Lys Ala Thr Asp Gly Ser Leu Gln Ser Glu Asp Trp Thr Leu
                20   25   30

Asn Met Glu Ile Cys Asp Ile Ile Asn Glu Thr Glu Glu Gly Pro Lys
            35   40   45

Asp Ala Ile Arg Ala Leu Lys Lys Arg Leu Asn Gly Asn Arg Asn Tyr
        50   55   60

Arg Glu Val Met Leu Ala Leu Thr Val Leu Glu Thr Cys Val Lys Asn
65   70   75   80

Cys Gly His Arg Phe His Ile Leu Val Ala Asn Arg Asp Phe Ile Asp
                85   90   95

Ser Val Leu Val Lys Ile Ile Ser Pro Lys Asn Asn Pro Pro Thr Ile
                100   105   110

Val Gln Asp Lys Val Leu Ala Leu Ile Gln Ala Trp Ala Asp Ala Phe
            115   120   125

Arg Ser Ser Pro Asp Leu Thr Gly Val Val His Ile Tyr Glu Glu Leu
        130   135   140

Lys Arg Lys Gly Val Glu Phe Pro Met Ala Asp Leu Asp Ala Leu Ser
145   150   155   160

Pro Ile His Thr Pro Gln Arg Ser Val Pro Glu Val Asp Pro Ala Ala
                165   170   175

Thr Met Pro Arg Ser Gln Ser Gln Gln Arg Thr Ser Ala Gly Ser Tyr
                180   185   190

Ser Ser Pro Pro Pro Ala Pro Tyr Ser Ala Pro Gln Ala Pro Ala Leu
            195   200   205

Ser Val Thr Gly Pro Ile Thr Ala Asn Ser Glu Gln Ile Ala Arg Leu
        210   215   220

Arg Ser Glu Leu Asp Val Val Arg Gly Asn Thr Lys Val Met Ser Glu

```
           225                    230                    235                    240
Met Leu Thr Glu Met Val Pro Gly Gln Glu Asp Ser Ser Asp Leu Glu
                        245                    250                    255
Leu Leu Gln Glu Leu Asn Arg Thr Cys Arg Ala Met Gln Gln Arg Ile
                    260                    265                    270
Val Glu Leu Ile Ser Arg Val Ser Asn Glu Glu Val Thr Glu Glu Leu
                275                    280                    285
Leu His Val Asn Asp Asp Leu Asn Asn Val Phe Leu Arg Tyr Glu Arg
            290                    295                    300
Phe Glu Arg Tyr Arg Ser Gly Arg Ser Val Gln Asn Ala Ser Asn Gly
305                    310                    315                    320
Val Leu Asn Glu Val Thr Glu Asp Asn Leu Ile Asp Leu Gly Pro Gly
                        325                    330                    335
Ser Pro Ala Val Val Ser Pro Met Val Gly Asn Thr Ala Pro Pro Ser
                340                    345                    350
Ser Leu Ser Ser Gln Leu Ala Gly Leu Asp Leu Gly Thr Glu Ser Val
                355                    360                    365
Ser Gly Thr Leu Ser Ser Leu Gln Gln Cys Asn Pro Arg Asp Gly Phe
            370                    375                    380
Asp Met Phe Ala Gln Thr Arg Gly Asn Ser Leu Ala Glu Gln Arg Lys
385                    390                    395                    400
Thr Val Thr Tyr Glu Asp Pro Gln Ala Val Gly Gly Leu Ala Ser Ala
                    405                    410                    415
Leu Asp Asn Arg Lys Gln Ser Ser Glu Gly Ile Pro Val Ala Gln Pro
                420                    425                    430
Ser Val Met Asp Asp Ile Glu Val Trp Leu Arg Thr Asp Leu Lys Gly
            435                    440                    445
Asp Asp Leu Glu Glu Gly Val Thr Ser Glu Glu Phe Asp Lys Phe Leu
            450                    455                    460
Glu Glu Arg Ala Lys Ala Ala Glu Met Val Pro Asp Leu Pro Ser Pro
465                    470                    475                    480
Pro Met Glu Ala Pro Ala Pro Ala Ser Asn Pro Ser Gly Arg Lys Lys
                    485                    490                    495
Pro Glu Arg Ser Glu Asp Ala Leu Phe Ala Leu
            500                    505
```

<210> 4250

<211> 150

<212> PRT

<213> Homo sapiens

<400> 4250

Met Glu Val Ser Tyr Thr Pro Leu Thr Val Phe Ser Ser Ser Val Val
1   5   10   15

Thr Lys Pro Tyr Pro Ser Leu Ser Ile Arg Ser Thr Ile Phe Pro Ser
            20   25   30

Leu Ser Ser Leu Ser Ser Gly Val Ser Ser Ser Lys Phe Leu Glu Ser
            35   40   45

Phe Leu Pro Arg Lys Ala Ser Trp Ser Tyr Trp Lys Leu Trp Leu Ser
        50   55   60

Ser Gly Gly Arg Ser Pro Ser Ser Glu Ser Gly Arg Thr Thr Arg Ser
65   70   75   80

Leu Arg Thr Val Gly Leu Ala Arg Arg Thr Arg Gly Ala Ser Thr Ser
                85   90   95

Ala Ser Ser Ser Pro Arg Ala Asn Pro Gly Gly His Arg Ala Pro Ser
            100   105   110

Ser Arg Gly Glu Gly Gly Arg Glu Gly Asp Ala Glu Arg Ala Thr Thr
            115   120   125

Ala Ala Ala Arg Glu Trp Gly Leu Gly Ala Arg Arg Pro Ser Phe Met
        130   135   140

Leu Cys Ile Phe Tyr Lys
145   150

<210> 4251

<211> 716

<212> PRT

<213> Homo sapiens

<400> 4251

Met Leu Lys Asp Tyr Leu Val Val Ala Gln Glu Ala Leu Ser Ala Gln

				5					10					15	

```
 1                    5                    10                   15
Lys Glu Ile Tyr Gln Val Lys Gln Gln Arg Leu Glu Leu Ala Gln Gln
              20                   25                   30
Glu Tyr Gln Gln Leu His Ala Val Trp Glu His Lys Leu Gly Ser Gln
              35                   40                   45
Val Ser Leu Val Ser Gly Ser Ser Ser Ser Ser Lys Tyr Asp Pro Glu
          50                   55                   60
Ile Leu Lys Ala Glu Ile Ala Thr Ala Lys Ser Arg Val Asn Lys Leu
 65                   70                   75                   80
Lys Arg Glu Met Val His Leu Gln His Glu Leu Gln Phe Lys Glu Arg
                  85                   90                   95
Gly Phe Gln Thr Leu Lys Lys Ile Asp Lys Lys Met Ser Asp Ala Gln
                  100                  105                  110
Gly Ser Tyr Lys Leu Asp Glu Ala Gln Ala Val Leu Arg Glu Thr Lys
              115                  120                  125
Ala Ile Lys Lys Ala Ile Thr Cys Gly Glu Lys Glu Lys Gln Asp Leu
          130                  135                  140
Ile Lys Ser Leu Ala Met Leu Lys Asp Gly Phe Arg Thr Asp Arg Gly
145                  150                  155                  160
Ser His Ser Asp Leu Trp Ser Ser Ser Ser Ser Leu Glu Ser Ser Ser
                  165                  170                  175
Phe Pro Leu Pro Lys Gln Tyr Leu Asp Val Ser Ser Gln Thr Asp Ile
                  180                  185                  190
Ser Gly Ser Phe Gly Ile Asn Ser Asn Asn Gln Leu Ala Glu Lys Val
                  195                  200                  205
Arg Leu Arg Leu Arg Tyr Glu Glu Ala Lys Arg Arg Ile Ala Asn Leu
          210                  215                  220
Lys Ile Gln Leu Ala Lys Leu Asp Ser Glu Ala Trp Pro Gly Val Leu
225                  230                  235                  240
Asp Ser Glu Arg Asp Arg Leu Ile Leu Ile Asn Glu Lys Glu Glu Leu
                  245                  250                  255
Leu Lys Glu Met Arg Phe Ile Ser Pro Arg Lys Trp Thr Gln Gly Glu
              260                  265                  270
Val Glu Gln Leu Glu Met Ala Arg Lys Arg Leu Glu Lys Asp Leu Gln
          275                  280                  285
Ala Ala Arg Asp Thr Gln Ser Lys Ala Leu Thr Glu Arg Leu Lys Leu
```

```
        290                    295                    300
Asn Ser Lys Arg Asn Gln Leu Val Arg Glu Leu Glu Glu Ala Thr Arg
305                    310                    315                    320
Gln Val Ala Thr Leu His Ser Gln Leu Lys Ser Leu Ser Ser Ser Met
                       325                    330                    335
Gln Ser Leu Ser Ser Gly Ser Ser Pro Gly Ser Leu Thr Ser Ser Arg
                  340                    345                    350
Gly Ser Leu Val Ala Ser Ser Leu Asp Ser Ser Thr Ser Ala Ser Phe
                  355                    360                    365
Thr Asp Leu Tyr Tyr Asp Pro Phe Glu Gln Leu Asp Ser Glu Leu Gln
         370                    375                    380
Ser Lys Val Glu Phe Leu Leu Leu Glu Gly Ala Thr Gly Phe Arg Pro
385                    390                    395                    400
Ser Gly Cys Ile Thr Thr Ile His Glu Asp Glu Val Ala Lys Thr Gln
                  405                    410                    415
Lys Ala Glu Gly Gly Gly Arg Leu Gln Ala Leu Arg Ser Leu Ser Gly
                  420                    425                    430
Thr Pro Lys Ser Met Thr Ser Leu Ser Pro Arg Ser Ser Leu Ser Ser
                  435                    440                    445
Pro Ser Pro Pro Cys Ser Pro Leu Met Ala Asp Pro Leu Leu Ala Gly
                  450                    455                    460
Asp Ala Phe Leu Asn Ser Leu Glu Phe Glu Asp Pro Glu Leu Ser Ala
465                    470                    475                    480
Thr Leu Cys Glu Leu Ser Leu Gly Asn Ser Ala Gln Glu Arg Tyr Arg
                  485                    490                    495
Leu Glu Glu Pro Gly Thr Glu Gly Lys Gln Leu Gly Gln Ala Val Ser
                  500                    505                    510
Thr Ala Gln Gly Cys Gly Leu Lys Val Ala Cys Val Ser Ala Ala Val
                  515                    520                    525
Ser Asp Glu Ser Val Ala Gly Asp Ser Gly Val Tyr Glu Ala Ser Val
                  530                    535                    540
Gln Arg Leu Gly Ala Ser Glu Ala Ala Ala Phe Asp Ser Asp Glu Ser
545                    550                    555                    560
Glu Ala Val Gly Ala Thr Arg Ile Gln Ile Ala Leu Lys Tyr Asp Glu
                  565                    570                    575
Lys Asn Lys Gln Phe Ala Ile Leu Ile Ile Gln Leu Ser Asn Leu Ser
```

```
            580                    585                    590
Ala Leu Leu Gln Gln Gln Asp Gln Lys Val Asn Ile Arg Val Ala Val
            595                    600                    605
Leu Pro Cys Ser Glu Ser Thr Thr Cys Leu Phe Arg Thr Arg Pro Leu
            610                    615                    620
Asp Ala Ser Asp Thr Leu Val Phe Asn Glu Val Phe Trp Val Ser Met
625                    630                    635                    640
Ser Tyr Pro Ala Leu His Gln Lys Thr Leu Arg Val Asp Val Cys Thr
                       645                    650                    655
Thr Asp Arg Ser His Leu Glu Glu Cys Leu Gly Gly Ala Gln Ile Ser
            660                    665                    670
Leu Ala Glu Val Cys Arg Ser Gly Glu Arg Ser Thr Arg Trp Tyr Asn
            675                    680                    685
Leu Leu Ser Tyr Lys Tyr Leu Lys Lys Gln Ser Arg Met Phe Ser Pro
            690                    695                    700
Arg Lys Pro His Leu Ile Trp Met Gly Thr Gln His
705                    710                    715
```

<210> 4252

<211> 286

<212> PRT

<213> Homo sapiens

<400> 4252

```
Met Glu Asp Arg His Val Ser Leu Pro Ser Phe Asn Gln Leu Phe Gly
1                      5                     10                     15
Leu Ser Asp Pro Val Asn Arg Ala Tyr Phe Ala Val Phe Asp Gly His
            20                     25                     30
Gly Gly Val Asp Ala Ala Arg Tyr Ala Ala Val His Val His Thr Asn
            35                     40                     45
Ala Ala Arg Gln Pro Glu Leu Pro Thr Asp Pro Glu Gly Ala Leu Arg
            50                     55                     60
Glu Ala Phe Arg Arg Thr Asp Gln Met Phe Leu Arg Lys Ala Lys Arg
65                     70                     75                     80
Glu Arg Leu Gln Ser Gly Thr Thr Gly Val Cys Ala Leu Ile Ala Gly
```

                    85   90   95
Ala Thr Leu His Val Ala Trp Leu Gly Asp Ser Gln Val Ile Leu Val
              100   105   110
Gln Gln Gly Gln Val Val Lys Leu Met Glu Pro His Arg Pro Glu Arg
              115   120   125
Gln Asp Glu Lys Ala Arg Ile Glu Ala Leu Gly Gly Phe Val Ser His
         130   135   140
Met Asp Cys Trp Arg Val Asn Gly Thr Leu Ala Val Ser Arg Ala Ile
145   150   155   160
Gly Asp Val Phe Gln Lys Pro Tyr Val Ser Gly Glu Ala Asp Ala Ala
              165   170   175
Ser Arg Ala Leu Thr Gly Ser Glu Asp Tyr Leu Leu Leu Ala Cys Asp
              180   185   190
Gly Phe Phe Asp Val Val Pro His Gln Glu Val Val Gly Leu Val Gln
              195   200   205
Ser His Leu Thr Arg Gln Gln Gly Ser Gly Leu Arg Val Ala Glu Glu
         210   215   220
Leu Val Ala Ala Ala Arg Glu Arg Gly Ser His Asp Asn Ile Thr Val
225   -   230   235   240
Met Val Val Phe Leu Arg Asp Pro Gln Glu Leu Arg Glu Gly Gly Asn
              245   250   255
Gln Gly Glu Gly Asp Pro Gln Ala Glu Gly Arg Arg Gln Asp Leu Pro
              260   265   270
Ser Ser Leu Pro Glu Pro Glu Thr Gln Ala Pro Pro Arg Ser
         275   280   285

<210> 4253

<211> 107

<212> PRT

<213> Homo sapiens

<400> 4253
Met Pro His Pro Val Pro Met Ile Thr Pro Ser Pro Val Pro Phe Thr
    1   5   10   15
Ala Lys Leu Leu Glu Ser Ser Phe Cys Thr Ser Cys Leu Leu Phe Leu

```
                 20                      25                      30
Cys Ser His Pro Cys Ser Ser Pro Phe Gln Ala Gly Ser His Pro Asp
            35                      40                 ·  45
Cys Leu Thr Glu Thr Val Leu Cys Arg Ser Pro Ala Lys Ser Leu Leu
       50                      55                 60
Pro Pro Pro Ala Ala Ser Phe Cys Pro His Pro Leu Gly Pro Val Ser
  65                      70                      75                      80
Ser Ile Arg Gly Asn Arg Gln His Leu Leu Ser Cys Ser Pro Val Met
                 85                      90                      95
Ala Gly His Val Val Leu Gly Arg Leu Ala Trp
            100                     105
```

<210> 4254

<211> 229

<212> PRT

<213> Homo sapiens

<400> 4254

```
Met Gly Pro Glu Gln Ile Leu Pro Thr Gly Ser Glu His Val Leu Pro
  1                       5                      10                      15
Thr Gly Ser Glu Gln Ile Leu Pro Thr Gly Ser Glu Gln Ile Leu Pro
                 20                      25                      30
Met Gly Ser Glu Gln Ile Leu Pro Met Pro Ser Glu Gln Val Leu Pro
            35                      40                      45
Met Gly Ser Glu His Val Leu Pro Thr Gly Ser Glu Gln Val Leu Pro
       50                      55                      60
Thr Gly Ser Glu Gln Val Leu Pro Thr Gly Ser Glu His Val Leu Pro
  65                      70                      75                      80
Thr Gly Ser Glu Gln Val Leu Leu Pro Thr Gly Ser Asp His Val Leu
                 85                      90                      95
Pro Thr Gly Ser Glu His Val Leu Ser Thr Gly Ser Glu Gln Val Leu
                 100                     105                     110
Pro Met Gly Ser Glu His Val Leu Pro Thr Gly Ser Glu Gln Val Leu
            115                     120                     125
Pro Thr Gly Ser Met Ser Ser Pro Arg Gly Leu Ser Met Ser Ser Pro
```

130   135   140

Trp Val Leu Ser Lys Ser Ser Pro Trp Gly Leu Ser Lys Ser Ser Pro
145   150   155   160

Arg Gly Leu Ser Lys Ser Ser Pro Trp Gly Leu Ser Lys Ser Phe Leu
                  165   170   175

Cys Arg Leu Ser Thr Ser Ser Pro Ser Cys Asp Arg Val Ser Leu Leu
             180   185   190

Gln Val Glu Asp Val Ala Arg Met His Leu Glu Gly Thr Pro Ala Ser
             195   200   205

Pro Glu Arg Pro Leu Leu Val Ala Trp Gly Val Ala Gly Trp Ser Gly
        210   215   220

Val Leu Gly Ala Leu
225

<210> 4255

<211> 105

<212> PRT

<213> Homo sapiens

<400> 4255

Met Gly Gln Asp Arg Ala Gly Ile Ala Val Thr Gly Trp Trp Lys Ile
1   5   10   15

Leu Gln Lys His Leu Phe Cys Leu Glu Gly Pro Asn Ser Phe Lys Asn
                  20   25   30

Met Cys Leu Ala Lys Ala His Ile Ser Gln Asn Leu Cys Lys Tyr Leu
             35   40   45

Glu Ala Phe Leu Leu Phe Tyr Val Asp Val Glu Ala Lys Glu Arg Lys
        50   55   60

Met Trp Pro His Val Cys Phe Gln Leu Leu Ile Ser Lys Tyr Leu Ala
65   70   75   80

Phe Ser Gly Met Arg Thr Asn Gln Ile Thr Phe Val Arg Tyr Ala Val
                  85   90   95

Pro Leu Asp Cys Ser Leu Ser Phe Gly
             100   105

<210> 4256

<211> 110

<212> PRT

<213> Homo sapiens

<400> 4256

Met Leu Phe Arg Ser Leu Pro Gly Asn Phe Asp Met Val His Val Phe

1   5   10   15

Thr Gln Asn Pro Ile Lys Gln Gly Ser Leu Ala Val Gln Phe Pro Pro

                 20   25   30

Val Leu Leu Ser Gly Trp Ile Gly Glu Gly Gly His Pro Ser Gln Leu

           35   40   45

Ser Ala Ser Thr Gln Pro Leu Trp Ala Met Trp Trp Gln Lys Gln Lys

      50   55   60

Ala Arg Gln Ala Pro Trp Glu Pro Gly Thr Leu Asp His Glu Ala Leu

65   70   75   80

His Leu Ser Glu Leu Gly Phe Pro Ser Phe Lys Lys Ile Phe Arg Arg

                 85   90   95

Gly Val Val Ala His Thr Cys Asn Pro Ser Thr Leu Gly Gly

                 100   105   110

<210> 4257

<211> 278

<212> PRT

<213> Homo sapiens

<400> 4257

Met Thr Asp Leu Asn Lys His Ile Lys Gln Ala Gln Thr Gln Arg Lys

1   5   10   15

Gln Leu Leu Glu Glu Ser Arg Glu Leu His Arg Glu Lys Leu Leu Val

                 20   25   30

Gln Ala Glu Asn Arg Phe Phe Leu Glu Tyr Leu Thr Asn Lys Thr Glu

           35   40   45

Glu Tyr Thr Glu Gln Pro Glu Lys Val Trp Asn Ser Tyr Leu Gln Lys

```
                    50                      55                      60
Ser Gly Glu Ile Glu Arg Arg Arg Gln Glu Ser Ala Ser Arg Tyr Ala
65                      70                      75                      80
Glu Gln Ile Ser Val Leu Lys Thr Ala Leu Leu Gln Lys Glu Asn Ile
                            85                      90                      95
Gln Ser Ser Leu Lys Arg Lys Leu Gln Ala Met Arg Asp Ile Ala Ile
                    100                     105                     110
Leu Lys Glu Lys Gln Glu Lys Glu Ile Gln Thr Leu Gln Glu Glu Thr
                115                     120                     125
Lys Lys Val Gln Ala Glu Thr Ala Ser Lys Thr Arg Glu Val Gln Ala
                130                     135                     140
Gln Leu Leu Gln Glu Lys Arg Leu Leu Glu Lys Gln Leu Ser Glu Pro
145                     150                     155                     160
Asp Arg Arg Leu Leu Gly Lys Arg Lys Arg Arg Glu Leu Asn Met Lys
                    165                     170                     175
Ala Gln Ala Leu Lys Leu Ala Ala Lys Arg Phe Ile Phe Glu Tyr Ser
                180                     185                     190
Cys Gly Ile Asn Arg Glu Asn Gln Gln Phe Lys Lys Glu Leu Leu Gln
                195                     200                     205
Leu Ile Glu Gln Ala Gln Lys Leu Thr Ala Thr Gln Ser His Leu Glu
                210                     215                     220
Asn Arg Lys Gln Gln Leu Gln Gln Glu Gln Trp Tyr Leu Glu Ser Leu
225                     230                     235                     240
Ile Gln Ala Arg Gln Arg Leu Gln Gly Ser His Asn Gln Cys Leu Asn
                245                     250                     255
Arg Gln Asp Val Pro Lys Thr Thr Pro Ser Leu Pro Gln Gly Thr Lys
                260                     265                     270
Ser Arg Ile Asn Pro Lys
                275
```

<210> 4258

<211> 327

<212> PRT

<213> Homo sapiens

<400> 4258

```
Met Ser Leu Met Thr Arg Glu Asn Leu Ala Phe Arg Gly Ser Leu Met
 1               5                   10                  15
Gly Cys Ser Glu Leu Lys Pro Phe Gln Glu Leu Thr His Gln Ser Ala
                20              25                  30
Val Ser His Ser Arg Ala Asp Val Ala Asp Val Trp Trp Tyr Cys Gly
        35                  40                  45
Gly Pro Leu Leu Asp Thr Leu Pro Ser Asn Trp Ser Gly Thr Cys Thr
        50                  55                  60
Leu Val Gln Phe Ala Ile Pro Phe Ala Leu Ala Phe Leu Gln Pro Glu
65                  70                  75                  80
Lys Glu Lys Pro Gln His Arg Lys Ile Arg Glu Ala Pro Tyr Gly Ser
                85                  90                  95
Phe Asp Ser Gln Val Tyr Leu Asp Ala Thr Gly Val Pro Gln Gly Val
            100             105             110
Pro His Lys Phe Lys Ala Gln Asp Gln Ile Ala Ala Gly Phe Glu Ser
            115             120             125
Ile Phe Trp Trp Val Thr Ile Ser Lys Asn Ile Asp Trp Ile Asn Tyr
            130             135             140
Ile Tyr Tyr Asn Gln Gln Arg Phe Ile Asn Tyr Thr Arg Asp Ala Val
145             150             155             160
Lys Gly Ile Ala Glu Gln Leu Gly Pro Thr Ser Gln Met Ala Trp Glu
            165             170             175
Asn Arg Met Ala Leu Asp Met Ile Leu Ala Lys Lys Gly Gly Val Cys
            180             185             190
Val Met Ile Lys Thr Gln Cys Cys Thr Phe Ile Pro Asn Asn Thr Ala
            195             200             205
Pro Ser Gly Ser Ile Thr Arg Ala Leu Gln Gly Leu Thr Ala Leu Ser
            210             215             220
Asn Glu Leu Ala Lys Asn Ser Gly Val Asn Asp Pro Phe Ser Gly Trp
225             230             235             240
Leu Glu Arg Trp Phe Gly Lys Trp Lys Gly Ile Ile Ala Ser Ile Leu
            245             250             255
Thr Ser Leu Ala Ala Val Ile Gly Val Val Ile Leu Phe Gly Cys Cys
            260             265             270
Val Thr Pro Cys Ile Arg Gly Leu Val Gln Arg Leu Ile Glu Thr Val
```

```
                275                    280                    285
Leu Thr Lys Thr Ser Leu Ser Ser Pro Pro Pro Tyr Ser Asp Lys Leu
        290                    295                    300
Phe Leu Leu Glu Asp Gln Val Glu Gln Gln Ser Gln Asp Leu Leu Lys
305                    310                    315                    320
Arg Phe Glu Glu Glu Gly Pro
                    325
```

<210> 4259

<211> 118

<212> PRT

<213> Homo sapiens

<400> 4259

```
Met Phe Leu Pro Arg Glu Val Leu Leu Arg Leu Trp Val Gln Ile Ala
    1                   5                      10                     15
Ile Leu Gly Cys Arg Tyr Ile Pro Gly Asp Ser Val Pro Ser Leu Met
                20                     25                     30
Val Ala Gln His Arg Pro Ala Arg Val Ala Ser Ala Ser Trp Ser Arg
            35                     40                     45
Ala Ala Arg Gly Gln Ala Trp Trp Leu Ala Pro Met Ile Pro Thr Leu
        50                     55                     60
Trp Glu Thr Glu Val Gly Arg Ser Leu Glu Pro Arg Ser Ser Arg Pro
65                     70                     75                     80
Thr Trp Ala Ala Trp Gln Lys Pro Ser Leu Gln Lys Ile Gln Asn Ser
                85                     90                     95
Pro Gly His Gly Gly Ala Phe Leu Trp Ser Gln Pro Lys Leu Ala Gly
                100                    105                    110
His Gly Gly Val Cys Leu
            115
```


<210> 4260

<211> 197

<212> PRT

<210> Homo sapiens

<400> 4260

Met	Gly	Gly	Ala	Gly	Gly	Gln	His	Gly	Thr	Asp	Leu	His	Pro	Ala	Leu
1				5					10					15	

Gln	Thr	Gly	Thr	Thr	Ala	Arg	Pro	Cys	Cys	Trp	Met	Val	Ser	Ser	Val
			20					25				30			

Trp	Ala	Pro	Ser	Trp	Asn	Thr	Thr	Gln	Ser	Thr	Ala	Thr	Gly	Thr	Ala
		35					40					45			

Leu	Thr	Glu	Ala	Arg	Gly	Pro	Ala	Cys	Pro	Gly	Pro	Leu	Ser	Leu	Lys
	50					55					60				

Pro	Arg	Leu	Val	Pro	Pro	Thr	Cys	Cys	Val	Met	Val	Trp	Leu	Pro	Arg
65					70					75					80

Pro	Ser	Leu	Gly	Trp	Val	Trp	Gly	Trp	Ser	Gly	Leu	Ala	His	Ala	Ser
				85					90					95	

His	Leu	Cys	Leu	His	Leu	Cys	Cys	His	Pro	Ala	Pro	Pro	Ser	Ser	Ser
			100					105					110		

Ser	Pro	Ala	Ser	Ser	Ser	Leu	Cys	Ala	Ser	Val	Ser	Cys	Arg	Lys	Lys
		115					120					125			

Trp	Val	Glu	Pro	Glu	Arg	Arg	Leu	Ser	Glu	Glu	Gly	Arg	Gly	Arg	Ala
	130					135					140				

Trp	Gly	Gly	Ser	Pro	Thr	Pro	His	Pro	Lys	Pro	Gln	Gly	Leu	Pro	Pro
145					150					155					160

Gly	Ser	Gly	Arg	Gly	Arg	Ser	Trp	Leu	Cys	Gly	Val	Val	Ala	Pro	Leu
			165					170					175		

Leu	Leu	Pro	Cys	Phe	Ser	His	Leu	Ser	Cys	Pro	Ser	Leu	Val	Pro	Thr
			180					185					190		

Ala	Val	His	His	Glu
		195		

<210> 4261

<211> 461

<212> PRT

<213> Homo sapiens

<400> 4261

Met Ser Arg Glu Gly Ala Gly Ala Ala Leu Val Ala Glu Val Ile Lys
1   5   10   15

Asp Arg Leu Cys Phe Ala Ile Leu Tyr Ser Arg Pro Lys Ser Ala Ser
                20   25   30

Asn Val His Tyr Phe Ser Ile Asp Asn Glu Leu Glu Tyr Glu Asn Phe
            35   40   45

Tyr Ala Asp Phe Gly Pro Leu Asn Leu Ala Met Val Tyr Arg Tyr Cys
        50   55   60

Cys Lys Ile Asn Lys Lys Leu Lys Ser Ile Thr Met Leu Arg Lys Lys
65   70   75   80

Ile Val His Phe Thr Gly Ser Asp Gln Arg Lys Gln Ala Asn Ala Ala
            85   90   95

Phe Leu Val Gly Cys Tyr Met Val Ile Tyr Leu Gly Arg Thr Pro Glu
            100   105   110

Glu Ala Tyr Arg Ile Leu Ile Phe Gly Glu Thr Ser Tyr Ile Pro Phe
            115   120   125

Arg Asp Ala Ala Tyr Gly Ser Cys Asn Phe Tyr Ile Thr Leu Leu Asp
        130   135   140

Cys Phe His Ala Val Lys Lys Ala Met Gln Tyr Gly Phe Leu Asn Phe
145   150   155   160

Asn Ser Phe Asn Leu Asp Glu Tyr Glu His Tyr Glu Lys Ala Glu Asn
                165   170   175

Gly Asp Leu Asn Trp Ile Ile Pro Asp Arg Phe Ile Ala Phe Cys Gly
                180   185   190

Pro His Ser Arg Ala Arg Leu Glu Ser Gly Tyr His Gln His Ser Pro
                195   200   205

Glu Thr Tyr Ile Gln Tyr Phe Lys Asn His Asn Val Thr Thr Ile Ile
        210   215   220

Arg Leu Asn Lys Arg Met Tyr Asp Ala Lys Arg Phe Thr Asp Ala Gly
225   230   235   240

Phe Asp His His Asp Leu Phe Phe Ala Asp Gly Ser Thr Pro Thr Asp
                245   250   255

Ala Ile Val Lys Glu Phe Leu Asp Ile Cys Glu Asn Ala Glu Gly Ala
                260   265   270

Ile Ala Val His Cys Lys Ala Gly Leu Gly Arg Thr Gly Thr Leu Ile

                275   280   285
Ala Cys Tyr Ile Met Lys His Tyr Arg Met Thr Ala Ala Glu Thr Ile
        290   295   300
Ala Trp Val Arg Ile Cys Arg Pro Gly Ser Val Ile Gly Pro Gln Gln
305   310   315   320
Gln Phe Leu Val Met Lys Gln Thr Asn Leu Trp Leu Glu Gly Asp Tyr
                        325   330   335
Phe Arg Gln Lys Leu Lys Gly Gln Glu Asn Gly Gln His Arg Ala Ala
                340   345   350
Phe Ser Lys Leu Leu Ser Gly Val Asp Asp Ile Ser Ile Asn Gly Val
                355   360   365
Glu Asn Gln Asp Gln Gln Glu Pro Glu Pro Tyr Ser Asp Asp Asp Glu
        370   375   380
Ile Asn Gly Val Thr Gln Gly Asp Arg Leu Arg Ala Leu Lys Ser Arg
385   390   395   400
Arg Gln Ser Lys Thr Asn Ala Ile Pro Leu Thr Val Ile Leu Gln Ser
                        405   410   415
Ser Val Gln Ser Cys Lys Thr Ser Glu Pro Asn Ile Ser Gly Ser Ala
                420   425   430
Gly Ile Thr Lys Arg Thr Thr Arg Ser Ala Ser Arg Lys Ser Ser Val
                435   440   445
Lys Ser Leu Ser Ile Ser Arg Thr Lys Thr Val Leu Arg
        450   455   460

<210> 4262

<211> 296

<212> PRT

<213> Homo sapiens

<400> 4262

Met Pro Ala Val Ser Lys Gly Asp Gly Met Arg Gly Leu Ala Val Phe
    1   5   10   15
Ile Ser Asp Ile Arg Asn Cys Lys Ser Lys Glu Ala Glu Ile Lys Arg
                20   25   30
Ile Asn Lys Glu Leu Ala Asn Ile Arg Ser Lys Phe Lys Gly Asp Lys

```
              35                    40                    45
Ala Leu Asp Gly Tyr Ser Lys Lys Lys Tyr Val Cys Lys Leu Leu Phe
        50                    55                    60
Ile Phe Leu Leu Gly His Asp Ile Asp Phe Gly His Met Glu Ala Val
 65              ·          70                    75                    80
Asn Leu Leu Ser Ser Asn Lys Tyr Thr Glu Lys Gln Ile Gly Tyr Leu
                     85                    90                    95
Phe Ile Ser Val Leu Val Asn Ser Asn Ser Glu Leu Ile Arg Leu Ile
               100                   105                   110
Asn Asn Ala Ile Lys Asn Asp Leu Ala Ser Arg Asn Pro Thr Phe Met
               115                   120                   125
Cys Leu Ala Leu His Cys Ile Ala Asn Val Gly Ser Arg Glu Met Gly
         130                   135                   140
Glu Ala Phe Ala Ala Asp Ile Pro Arg Ile Leu Val Ala Gly Asp Ser
145                   150                   155                   160
Met Asp Ser Val Lys Gln Ser Ala Ala Leu Cys Leu Leu Arg Leu Tyr
                    165                   170                   175
Lys Ala Ser Pro Asp Leu Val Pro Met Gly Glu Trp Thr Ala Arg Val
               180                   185                   190
Val His Leu Leu Asn Asp Gln His Met Gly Val Val Thr Ala Ala Val
         195                   200                   205
Ser Leu Ile Thr Cys Leu Cys Lys Lys Asn Pro Asp Asp Phe Lys Thr
         210                   215                   220
Cys Val Ser Leu Ala Val Ser Arg Leu Ser Arg Ile Val Ser Ser Ala
225                   230                   235                   240
Ser Thr Asp Leu Gln Asp Tyr Thr Tyr Tyr Phe Val Pro Ala Pro Trp
                    245                   250                   255
Leu Ser Val Lys Leu Leu Arg Leu Leu Gln Cys Tyr Leu Asn Tyr His
               260                   265                   270
Ser Pro Val Arg Gly Phe His Ile Trp Trp Glu Pro Ser Pro Thr Ala
               275                   280                   285
His Ser His Asn Ser Gln Cys Val
    290                   295
```

<210> 4263

<211> 115

<212> PRT

<213> Homo sapiens

<400> 4263

Met Val Ser Lys Ser Ala Val Asp Phe Gly Leu Glu Glu His Lys His
1   5   10   15

Asn Leu Tyr Pro Lys Leu Phe Tyr Pro Phe Ala Asn Phe Leu Leu Leu
                20   25   30

Asp Leu Ser Thr Lys Ser Val Val Leu Leu Leu Ser Leu Gln Leu Val
            35   40   45

Ser Val His Ala Val Gln Leu Leu Ile Thr Ser Gly Leu Trp Ala Gly

        50   55   60

Ser Lys Asn Leu Lys Leu Ile Met Leu Asp Ser Gly Ala Ser Val Gly
65   70   75   80

Leu His Ile Val Tyr Phe Pro Pro Ser Pro Ser Ala Thr Ala Val Leu
                85   90   95

Gly Arg Asp Ser Phe Phe Pro Leu Trp Leu Val Leu Glu Asn Cys Met
                100   105   110

Gly Tyr Arg
        115

<210> 4264

<211> 307

<212> PRT

<213> Homo sapiens

<400> 4264

Met Pro Ser Leu Leu Gly Ala Pro Pro Tyr Ser Gly Leu Gly Gly Val
1   5   10   15

Gly Asp Pro Tyr Ala Pro Leu Met Val Leu Met Cys Arg Val Cys Leu
                20   25   30

Glu Asp Lys Pro Ile Lys Pro Leu Pro Cys Cys Lys Lys Ala Val Cys
            35   40   45

Glu Glu Cys Leu Lys Val Tyr Leu Ser Ala Gln Val Gln Leu Gly Gln
       50   55   60

Val Glu Ile Lys Cys Pro Ile Thr Glu Cys Phe Glu Phe Leu Glu Glu
65   70   75   80

Thr Thr Val Val Tyr Asn Leu Thr His Glu Asp Ser Ile Lys Tyr Lys
              85   90   95

Tyr Phe Leu Glu Leu Gly Arg Ile Asp Ser Ser Thr Lys Pro Cys Pro
           100   105   110

Gln Cys Lys His Phe Thr Thr Phe Lys Lys Lys Gly His Ile Pro Thr
           115   120   125

Pro Ser Arg Ser Glu Ser Lys Tyr Lys Ile Gln Cys Pro Thr Cys Gln
         130   135   140

Phe Val Trp Cys Phe Lys Cys His Ser Pro Trp His Glu Gly Val Asn
145   150   155   160

Cys Lys Glu Tyr Lys Lys Gly Asp Lys Leu Leu Arg His Trp Ala Ser
              165   170   175

Glu Ile Glu His Gly Gln Arg Asn Ala Gln Lys Cys Pro Lys Cys Lys

           180   185   190

Ile His Ile Gln Arg Thr Glu Gly Cys Asp His Met Thr Cys Ser Gln
           195   200   205

Cys Asn Thr Asn Phe Cys Tyr Arg Cys Gly Glu Arg Tyr Arg Gln Leu
         210   215   220

Arg Phe Phe Gly Asp His Thr Ser Asn Leu Ser Ile Phe Gly Cys Lys
225   230   235   240

Tyr Arg Tyr Leu Pro Glu Arg Pro His Leu Arg Arg Leu Val Arg Gly
              245   250   255

Ser Val Cys Ala Gly Lys Leu Phe Ile Ala Pro Leu Ile Met Val Leu
         260   265   270

Gly Leu Ala Leu Gly Ala Ile Ala Val Val Ile Gly Leu Phe Val Phe
         275   280   285

Pro Ile Tyr Cys Leu Cys Lys Lys Gln Arg Lys Arg Ser Arg Thr Gly
         290   295   300

Met His Trp
305

<210> 4265

<211> 132

<212> PRT

<213> Homo sapiens

<400> 4265

Met Ser Arg Arg Gly Thr Trp Gly Gly Thr Pro Arg Asp Ala Gly Leu

1   5   10   15

Cys Glu Pro Pro Ala Ser Ala Leu Thr Asn Gly Asp Leu Leu Pro His

                20   25   30

Phe Ala Leu Ile Asn Phe Lys Gln Leu Lys Asp Cys Pro Ser Tyr Gly

            35   40   45

Phe Trp Phe Val Phe Leu Val Val Ser Val Val Val Glu Thr Ala Glu

        50   55   60

Val Leu Gly Asp Ser Leu Gly Phe Gly Ala Gly His Gly Glu Gly Thr

65   70   75   80

Gly Lys Arg Trp Gly Leu Phe Leu Phe Val Thr Tyr Arg Thr Glu Thr

                85   90   95

Ser Ser Val Asn Cys Tyr Pro Trp Gly Leu Leu His Pro Gly Val Arg

                100   105   110

Pro Pro Ala Cys Leu Val Pro Cys Pro Ser Pro Arg Ser Arg Ala Gly

            115   120   125

His Leu Arg Gly

    130

<210> 4266

<211> 160

<212> PRT

<213> Homo sapiens

<400> 4266

Met Val Ala Phe Val Gln Ala Arg Ala Gly Leu Met Asp Val Leu Val

1   5   10   15

Ser Pro Thr Val Gly Cys Gln Leu Ser Arg Pro Thr Gly Arg Asn Ile
            20   25   30

Arg Leu Ser Ser Ser Leu Thr Pro Asp Thr Arg Pro Gln Trp Ala Cys
            35   40   45

Thr Gly Pro Gln Lys Val Ser Leu Gly Phe Ala Phe Leu Val Ser Ile
        50   55   60

Thr Val Lys Glu Ala Leu Ile Glu Gln Leu Gln Cys Thr Trp Ser Ser
65   70   75   80

Ala Ser Ala Gly His Leu Glu Ile Gly Thr Val Met Val Pro Ala Leu
                85   90   95

Lys Glu Leu Met Thr Trp Trp Gly Pro Val Val Phe Lys Glu Pro Arg
            100   105   110

Ser His Trp Ala Pro Lys Val Glu Leu Lys Asp Trp Gly Gln Leu Ala
            115   120   125

Leu Ser Leu Pro Pro Leu His Cys Leu Pro Leu Lys Asn Pro Thr Pro
        130   135   140

Pro His Asp Gly Pro Leu Cys Ser Pro Cys Ile Ser Val Thr Val Asn
145   150   155   160

<210> 4267

<211> 270

<212> PRT

<213> Homo sapiens

<400> 4267

Met Ser Ser Thr Gln Phe Asn Lys Gly Pro Ser Tyr Gly Leu Ser Ala
 1   5   10   15

Glu Val Lys Asn Arg Leu Leu Ser Lys Tyr Asp Pro Gln Lys Glu Ala
            20   25   30

Glu Leu Arg Thr Trp Ile Glu Gly Leu Thr Gly Leu Ser Ile Gly Pro
            35   40   45

Asp Phe Gln Lys Gly Leu Lys Asp Gly Thr Ile Leu Cys Thr Leu Met
        50   55   60

Asn Lys Leu Gln Pro Gly Ser Val Pro Lys Ile Asn Arg Ser Met Gln
65   70   75   80

Asn Trp His Gln Leu Glu Asn Leu Ser Asn Phe Ile Lys Ala Met Val
                85   90   95

Ser Tyr Gly Met Asn Pro Val Asp Leu Phe Glu Ala Asn Asp Leu Phe
               100   105   110

Glu Ser Gly Asn Met Thr Gln Val Gln Val Ser Leu Leu Ala Leu Ala
               115   120   125

Gly Lys Met Gly Thr Asn Lys Cys Ala Ser Gln Ser Gly Met Thr Ala
               130   135   140

Tyr Gly Thr Arg Arg His Leu Tyr Asp Pro Lys Asn His Ile Leu Pro
145   150   155   160

Pro Met Asp His Ser Thr Ile Ser Leu Gln Met Gly Thr Asn Lys Cys
               165   170   175

Ala Ser Gln Val Gly Met Thr Ala Pro Gly Thr Arg Arg His Ile Tyr
               180   185   190

Asp Thr Lys Leu Gly Thr Asp Lys Cys Asp Asn Ser Ser Met Ser Leu
               195   200   205

Gln Met Gly Tyr Thr Gln Gly Ala Asn Gln Ser Gly Gln Val Phe Gly
               210   215   220

Leu Gly Arg Gln Ile Tyr Asp Pro Lys Tyr Cys Pro Gln Gly Thr Val
225   230   235   240

Ala Asp Gly Ala Pro Ser Gly Thr Gly Asp Cys Pro Asp Pro Gly Glu
               245   250   255

Val Pro Glu Tyr Pro Pro Tyr Tyr Gln Glu Glu Ala Gly Tyr
               260   265   270

<210> 4268

<211> 410

<212> PRT

<213> Homo sapiens

<400> 4268

Met Gly Asn Val Val Thr Cys Glu Leu Ser Val Glu Lys Val Cys Asp
  1   5   10   15

Glu Asp Gly Glu Ala Lys Glu Leu Asp Tyr Gln Ala Thr Leu Leu Glu
                20   25   30

Asp Gln Ala Pro Ala His Phe His Arg Asn Phe Pro Glu Gln Val Phe
        35   40   45

Gln Asp Leu Gln Arg Lys Ser Pro Glu Ser Glu Ile Leu Ser Leu His
        50   55   60

Leu Leu Val Glu Glu Leu Arg Leu Asn Pro Asp Gly Val Glu Thr Val
65   70   75   80

Asn Asp Thr Lys Pro Glu Leu Asn Val Ala Ser Ser Glu Gly Gly Glu
            85   90   95

Met Glu Arg Arg Asp Ser Asp Ser Phe Leu Asn Ile Phe Pro Glu Lys
            100   105   110

Gln Val Thr Lys Ala Gly Asn Thr Glu Pro Val Leu Glu Glu Trp Ile
            115   120   125

Pro Val Leu Gln Arg Pro Ser Arg Thr Ala Ala Val Pro Thr Val Lys
         130   135   140

Asp Ala Leu Asp Ala Ala Leu Pro Ser Pro Glu Glu Gly Thr Ser Ile
145   150   155   160

Ala Ala Val Pro Ala Pro Glu Gly Thr Ala Val Val Ala Ala Leu Val
            165   170   175

Pro Phe Pro His Glu Asp Ile Leu Val Ala Ser Ile Val Ser Leu Glu
            180   185   190

Glu Glu Asp Val Thr Ala Ala Ala Val Ser Ala Pro Glu Arg Ala Thr
            195   200   205

Val Pro Ala Val Thr Val Ser Val Pro Glu Gly Thr Ala Ala Val Ala
         210   215   220

Ala Val Ser Ser Pro Glu Glu Thr Ala Pro Ala Val Ala Ala Ala Ile
225   230   235   240

Thr Gln Glu Gly Met Ser Ala Val Ala Gly Phe Ser Pro Glu Trp Ala
            245   250   255

Ala Leu Ala Ile Thr Val Pro Ile Thr Glu Glu Asp Gly Thr Pro Glu
            260   265   270

Gly Pro Val Thr Pro Ala Thr Thr Val His Ala Pro Glu Glu Pro Asp
            275   280   285

Thr Ala Ala Val Arg Val Ser Thr Pro Glu Glu Pro Ala Ser Pro Ala
         290   295   300

Ala Ala Val Pro Thr Pro Glu Glu Pro Thr Ser Pro Ala Ala Ala Val
305   310   315   320

Pro Thr Pro Glu Glu Pro Thr Ser Pro Ala Ala Ala Val Pro Pro Pro
            325   330   335
Glu Glu Pro Thr Ser Pro Ala Ala Ala Val Pro Thr Pro Glu Glu Pro
            340   345   350
Thr Ser Pro Ala Ala Ala Val Pro Thr Pro Glu Glu Pro Thr Ser Pro
            355   360   365
Ala Ala Ala Val Pro Thr Pro Glu Glu Pro Thr Ser Pro Ala Ala Ala .
        370   375   380
Val Pro Thr Pro Glu Glu Pro Ala Ser Pro Ala Ala Ala Val Pro Thr
385   390   395   400
Pro Glu Ile Gln Cys Gly Trp Trp Gly Trp
              · 405   410

<210> 4269

<211> 117

<212> PRT

<213> Homo sapiens

<400> 4269

Met Leu Val Leu Ala Trp Lys Leu Asp Ala Gln Asn Met Gly Tyr Phe
  1   5   10   15
Thr Leu Gln Glu Trp Leu Lys Gly Met Thr Ser Leu Gln Cys Asp Thr
                20   25   30
Thr Glu Lys Leu Arg Asn Thr Leu Asp Tyr Leu Arg Ser Phe Leu Asn
            35   40   45   .
Asp Ser Thr Asn Phe Lys Leu Ile Tyr Arg Tyr Ala Phe Asp Phe Ala
        50   55   60
Arg Gln Ser Lys Tyr Lys Val Ile Asn Lys Asp Gln Trp Cys Asn Val
65   70   75   80
Leu Glu Phe Ser Arg Thr Ile Asn Leu Asp Leu Ser Asn Tyr Asp Glu
                85   90   95
Asp Gly Ala Trp Pro Val Leu Leu Asp Glu Phe Val Glu Trp Tyr Lys
                100   105   110
Asp Lys Gln Met Ser

115

<210> 4270

<211> 630

<212> PRT

<213> Homo sapiens

<400> 4270

Met Val Val Val Ile Ala Val Ser Val Tyr Cys Tyr Trp Arg Lys Ser
1   5   10   15

Gln Gln Ala Glu Arg Glu Tyr Glu Lys Ile Lys Ser Gln Leu Glu Gly
            20   25   30

Leu Glu Glu Ser Val Arg Asp Arg Cys Lys Lys Glu Phe Thr Asp Leu
        35   40   45

Met Ile Glu Met Glu Asp Gln Thr Asn Asp Val His Glu Ala Gly Ile
    50   55   60

Pro Val Leu Asp Tyr Lys Thr Tyr Thr Asp Arg Val Phe Phe Leu Pro
65   70   75   80

Ser Lys Asp Gly Asp Lys Asp Val Met Ile Thr Gly Lys Leu Asp Ile
            85   90   95

Pro Glu Pro Arg Arg Pro Val Val Glu Gln Ala Leu Tyr Gln Phe Ser
            100   105   110

Asn Leu Leu Asn Ser Lys Ser Phe Leu Ile Asn Phe Ile His Thr Leu
        115   120   125

Glu Asn Gln Arg Glu Phe Ser Ala Arg Ala Lys Val Tyr Phe Ala Ser
    130   135   140

Leu Leu Thr Val Ala Leu His Gly Lys Leu Glu Tyr Tyr Thr Asp Ile

145   150   155   160

Met His Thr Leu Phe Leu Glu Leu Leu Glu Gln Tyr Val Val Ala Lys
            165   170   175

Asn Pro Lys Leu Met Leu Arg Arg Ser Glu Thr Val Val Glu Arg Met
            180   185   190

Leu Ser Asn Trp Met Ser Ile Cys Leu Tyr Gln Tyr Leu Lys Asp Ser

```
              195                   200                   205
Ala Gly Glu Pro Leu Tyr Lys Leu Phe Lys Ala Ile Lys His Gln Val
     210                   215                   220
Glu Lys Gly Pro Val Asp Ala Val Gln Lys Lys Ala Lys Tyr Thr Leu
225                   230                   235                   240
Asn Asp Thr Gly Leu Leu Gly Asp Asp Val Glu Tyr Ala Pro Leu Thr
                   245                   250                   255
Val Ser Val Ile Val Gln Asp Glu Gly Val Asp Ala Ile Pro Val Lys
                   260                   265                   270
Val Leu Asn Cys Asp Thr Ile Ser Gln Val Lys Glu Lys Ile Ile Asp
                   275                   280                   285
Gln Val Tyr Arg Gly Gln Pro Cys Ser Cys Trp Pro Arg Pro Asp Ser
     290                   295                   300
Val Val Leu Glu Trp Arg Pro Gly Ser Thr Ala Gln Ile Leu Ser Asp
305                   310                   315                   320
Leu Asp Leu Thr Ser Gln Arg Glu Gly Arg Trp Lys Arg Val Asn Thr
                   325                   330                   335
Leu Ile His Tyr Asn Val Arg Asp Gly Ala Thr Leu Ile Leu Ser Lys
                   340                   345                   350
Val Gly Val Ser Gln Gln Pro Glu Asp Ser Gln Gln Asp Leu Pro Gly
     355                   360                   365
Glu Arg His Ala Leu Leu Glu Glu Glu Asn Arg Val Trp His Leu Val
     370                   375                   380
Arg Pro Thr Asp Glu Val Asp Glu Gly Lys Ser Lys Arg Gly Ser Val
385                   390                   395                   400
Lys Glu Lys Glu Arg Thr Lys Ala Ile Thr Glu Ile Tyr Leu Thr Arg
                   405                   410                   415
Leu Leu Ser Val Lys Gly Thr Leu Gln Gln Phe Val Asp Asn Phe Phe
                   420                   425                   430
Gln Ser Val Leu Ala Pro Gly His Ala Val Pro Pro Ala Val Lys Tyr
                   435                   440                   445
Phe Phe Asp Phe Leu Asp Glu Gln Ala Glu Lys His Asn Ile Gln Asp
     450                   455                   460
Glu Asp Thr Ile His Ile Trp Lys Thr Asn Ser Leu Pro Leu Arg Phe
465                   470                   475                   480
Trp Val Asn Ile Leu Lys Asn Pro His Phe Ile Phe Asp Val His Val
```

		485				490					495	

His Glu Val Val Asp Ala Ser Leu Ser Val Ile Ala Gln Thr Phe Met

500   505   510

Asp Ala Cys Thr Arg Thr Glu His Lys Leu Ser Arg Asp Ser Pro Ser

515   520   525

Asn Lys Leu Leu Tyr Ala Lys Glu Ile Ser Thr Tyr Lys Lys Met Val

530   535   540

Glu Asp Tyr Tyr Lys Gly Ile Arg Gln Met Val Gln Val Ser Asp Gln

545   550   555   560

Asp Met Asn Thr His Leu Ala Glu Ile Ser Arg Ala His Thr Asp Ser

565   570   575

Leu Asn Thr Leu Val Ala Leu His Gln Leu Tyr Gln Tyr Thr Gln Lys

580   585   590

Tyr Tyr Asp Glu Ile Ile Asn Ala Leu Glu Glu Asp Pro Ala Ala Gln

595   600   605

Lys Met Gln Leu Ala Phe Arg Leu Gln Gln Ile Ala Ala Ala Leu Glu

610   615   620

Asn Lys Val Thr Asp Leu

625   630

<210> 1271

<211> 156

<212> PRT

<213> Homo sapiens

<400> 1271

Met Gly His Gly Asp Gly Asp Met Gly Pro Cys Arg Leu His Lys Ala

1   5   10   15

Lys Trp Lys Ser Arg Phe Phe Thr Val Asn Val Gly Arg Pro Phe Phe

20   25   30

Phe Pro Gly Cys Leu Thr Tyr Tyr Cys Arg Ser Ala His Ile His Ser

35   40   45

Phe Pro Ser Val Leu Trp Gln Asp Asp Ile Ile Asp Asp Val Asp Ser

50   55   60

Phe Leu Ala Ala Ala Glu Thr Leu Lys Glu Arg Gly Ala Tyr Lys Ile

```
           65                      70                      75                      80
          Phe Val Met Ala Thr His Gly Leu Leu Ser Ser Asp Ala Pro Arg Arg
                              85                      90                      95
          Ile Glu Glu Ser Ala Ile Asp Glu Val Val Val Thr Asn Thr Ile Pro
                         100                     105                     110
          His Glu Val Gln Lys Leu Gln Cys Pro Lys Ile Lys Thr Val Asp Ile
                    115                     120                     125
          Ser Met Ile Leu Ser Glu Ala Ile Arg Arg Ile His Asn Gly Glu Ser
               130                     135                     140
          Met Ser Tyr Leu Phe Arg Asn Ile Gly Leu Asp Asp
          145                     150                     155
```

<210> 4272

<211> 138

<212> PRT

<213> Homo sapiens

<400> 4272

```
          Met Arg Val Gly Trp Arg Gly Ala Val Cys Pro Ala Ser Arg Pro Arg
           1                       5                      10                      15
          Gly Gly His Ser Pro Gln Ala Ile Leu Gly Ser Lys Asn Trp Pro Val
                              20                      25                      30
          Arg Met Cys Leu Arg Leu Ser Pro Arg Gln Gln His His Gln Arg Gly
                         35                      40                      45
          Thr Ser Leu Ser Trp Gly Ser His Val Glu Leu Tyr Leu Glu Gln Ile
                    50                      55                      60
          Val Asn Arg Gly Ala Cys Gln Phe Thr Phe Ile Arg Thr Arg Phe Phe
          65                      70                      75                      80
          Ser Leu Pro Asp Leu Pro Cys Lys Ser His Gly Gly Val Gly Ile Lys
                              85                      90                      95
          Glu Lys Arg Ala Tyr Leu Asp Phe His Asp Leu Ser Val Asn Asp Ser
                         100                     105                     110
          Tyr Pro Gly Trp Arg Phe Leu Ala Pro Phe Leu Ala Leu Asp Pro Met
                    115                     120                     125
          Thr Pro Ser Met Ile Phe Phe Lys Val Gln
```

130   135

<210> 4273

<211> 522

<212> PRT

<213> Homo sapiens

<400> 4273

Met Met Gly His Arg Pro Val Leu Val Leu Ser Gln Asn Thr Lys Arg
1   5   10   15

Glu Ser Gly Arg Lys Val Gln Ser Gly Asn Ile Asn Ala Ala Lys Thr
                20   25   30

Ile Ala Asp Ile Ile Arg Thr Cys Leu Gly Pro Lys Ser Met Met Lys
        35   40   45

Met Leu Leu Asp Pro Met Gly Gly Ile Val Met Thr Asn Asp Gly Asn
        50   55   60

Ala Ile Leu Arg Glu Ile Gln Val Gln His Pro Ala Ala Lys Ser Met
65   70   75   80

Ile Glu Ile Ser Arg Thr Gln Asp Glu Glu Val Gly Asp Gly Thr Thr
                85   90   95

Thr Val Val Ile Ser Ala Tyr Arg Lys Ala Leu Asp Asp Met Ile Ser
                100   105   110

Thr Leu Lys Lys Ile Ser Ile Pro Val Asp Ile Ser Asp Ser Asp Met
            115   120   125

Met Leu Asn Ile Ile Asn Ser Ser Ile Thr Thr Lys Ala Ile Ser Arg
        130   135   140

Trp Ser Ser Leu Ala Cys Asn Ile Ala Leu Asp Ala Val Lys Met Val
145   150   155   160

Gln Phe Glu Glu Asn Gly Arg Lys Glu Ile Asp Ile Lys Lys Tyr Ala
                165   170   175

Arg Val Glu Lys Ile Pro Gly Gly Ile Ile Glu Asp Ser Cys Val Leu
            180   185   190

Arg Gly Val Met Ile Asn Lys Asp Val Thr His Pro Arg Met Arg Arg
            195   200   205

His Ile Lys Asn Pro Arg Ile Val Leu Leu Asp Ser Ser Leu Glu Tyr

```
            210                  215                  220
Lys Lys Gly Glu Ser Gln Thr Asp Ile Glu Ile Thr Arg Glu Glu Asp
225                 230                 235                 240
Phe Thr Arg Ile Leu Gln Met Glu Glu Glu Tyr Ile Gln Gln Leu Cys
                245                 250                 255
Glu Asp Ile Ile Gln Leu Lys Pro Asp Val Val Ile Thr Glu Lys Gly
                260                 265                 270
Ile Ser Asp Leu Ala Gln His Tyr Leu Met Arg Ala Asn Ile Thr Ala
                275                 280                 285
Ile Arg Arg Val Arg Lys Thr Asp Asn Asn Arg Ile Ala Arg Ala Cys
                290                 295                 300
Gly Ala Arg Ile Val Ser Arg Pro Glu Glu Leu Arg Glu Asp Asp Val
305                 310                 315                 320
Gly Thr Gly Ala Gly Leu Leu Glu Ile Lys Lys Ile Gly Asp Glu Tyr
                325                 330                 335
Phe Thr Phe Ile Thr Asp Cys Lys Asp Pro Lys Ala Cys Thr Ile Leu
                340                 345                 350
Leu Arg Gly Ala Ser Lys Glu Ile Leu Ser Glu Val Glu Arg Asn Leu
                355                 360                 365
Gln Asp Ala Met Gln Val Cys Arg Asn Val Leu Leu Asp Pro Gln Leu
                370                 375                 380
Val Pro Gly Gly Gly Ala Ser Glu Met Ala Val Ala His Ala Leu Thr
385                 390                 395                 400
Glu Lys Ser Lys Ala Met Thr Gly Val Glu Gln Trp Pro Tyr Arg Ala
                405                 410                 415
Val Ala Gln Ala Leu Glu Val Ile Pro Arg Thr Leu Ile Gln Asn Cys
                420                 425                 430
Gly Ala Ser Thr Ile Arg Leu Leu Thr Ser Leu Arg Ala Lys His Thr
                435                 440                 445
Gln Glu Asn Cys Glu Thr Trp Gly Val Asn Gly Glu Thr Gly Thr Leu
                450                 455                 460
Val Asp Met Lys Glu Leu Gly Ile Trp Glu Pro Leu Ala Val Lys Leu
465                 470                 475                 480
Gln Thr Tyr Lys Thr Ala Val Glu Thr Ala Val Leu Leu Leu Arg Ile
                485                 490                 495
Asp Asp Ile Val Ser Gly His Lys Lys Lys Gly Asp Asp Gln Ser Arg
```

                500   505   510
Gln Gly Gly Ala Pro Asp Ala Gly Gln Glu
              515   520

<210> 4274
<211> 191
<212> PRT
<213> Homo sapiens

<400> 4274
Met Ser Ser Thr Leu Gly Lys Leu Ser Asn Gln Val Glu Glu Thr Leu
  1   5   10   15
Pro Leu Leu Lys Lys Pro Leu Lys Arg Ala Ile Thr Thr Leu Met Ala
                20   25   30
Gly Ile Leu Arg Leu Val Val Gln Trp Pro Pro Gly Arg Leu Gln Thr
              35   40   45
Val Thr Lys Gly Val Glu Ser Leu Ile Cys Thr Asp Trp Ile Arg His
            50   55   60
Lys Phe Thr Arg Ser Arg Ile Pro Glu Lys Ala Phe Gln Ala Ser Pro
65   70   75   80
Glu Asp His Glu Lys Tyr Gly Gly Asp Pro Gln Asn Pro His Lys Leu

                  85   90   95
His Ile Val Thr Arg Ile Lys Ser Thr Arg Arg Arg Pro Tyr Trp Glu
              100   105   110
Lys Asp Ile Ile Lys Met Leu Gly Leu Glu Lys Ala His Thr Pro Gln
            115   120   125
Val His Lys Asn Ile Pro Ser Val Asn Ala Lys Leu Lys Val Val Lys
          130   135   140
His Leu Ile Arg Ile Lys Pro Leu Lys Leu Pro Gln Gly Leu Pro Thr
145   150   155   160
Glu Glu Asn Met Ser Asn Thr Cys Leu Lys Ser Thr Gly Glu Leu Val
                165   170   175
Val Gln Trp His Leu Lys Pro Val Glu Gln Lys Ala His Glu Ser
            180   185   190

<210> 4275

<211> 131

<212> PRT

<213> Homo sapiens

<400> 4275

```
Met Leu Asp Ile Leu Val Tyr Glu Glu Gln Gln Gln Ala Ala Ala Gly
 1               5                  10                  15
Glu Ala Gly Pro Cys Leu Glu Tyr Leu Leu Gln His Lys Ile Leu Glu
                20                  25                  30
Thr Leu Cys Thr Leu Gly Lys Ala Glu Val Gly Gly Pro Leu Arg Ala
            35                  40                  45
Gly Pro Gly Arg Gly Gly Arg Pro Leu Arg Ala Trp Pro Gly Arg Gly
        50                  55                  60
Gly Arg Pro Leu Cys Ala Gly Pro Gly Arg Gly Gly Arg Pro Ser Glu
 65                  70                  75                  80
Cys Trp Ala Arg Leu Arg Trp Ala Val Gly Ser Gly Gln Pro Gly Ala
                85                  90                  95
Pro Trp Ile Pro Gly Leu Ser Ala Tyr Ala Leu Pro Ser Pro Asp Thr
                100                 105                 110
Glu Ser Gly Ser Ser Gly Glu Arg Ser Lys Gln Asp Gly His Cys Gly
                115                 120                 125
Cys Leu Thr
        130
```


<210> 4276

<211> 357

<212> PRT

<213> Homo sapiens

<400> 4276

```
Met Phe Cys Tyr Lys Trp Arg Arg Arg Arg Thr Thr Thr Met Gly Ile
 1               5                  10                  15
```

Ser Glu Glu Phe Asn Gly Lys Pro Asp Ser Leu Phe Phe Asn Asp Gly
           20   25   30

Gln Arg Arg Ile Asp Phe Val Leu Val Tyr Glu Asp Glu Ser Arg Lys
          35   40   45

Glu Thr Asn Lys Lys Gly Thr Asn Glu Lys Gln Arg Arg Lys Arg Gln
     50   55   60

Ala Tyr Glu Ser Asn Leu Ile Cys His Gly Leu Gln Leu Glu Ala Thr
65   70   75   80

Arg Ser Val Leu Asp Asp Lys Leu Val Phe Val Lys Val His Ala Pro
             85   90   95

Trp Glu Val Leu Cys Thr Tyr Ala Glu Ile Met His Ile Lys Leu Pro
          100   105   110

Leu Lys Pro Asn Asp Leu Lys Asn Arg Ser Ser Ala Phe Gly Thr Leu
          115   120   125

Asn Trp Phe Thr Lys Val Leu Ser Val Asp Glu Ser Ile Ile Lys Pro
          130   135   140

Glu Gln Glu Phe Phe Thr Ala Pro Phe Glu Lys Asn Arg Met Asn Asp
145   150   155   160

Phe Tyr Ile Val Asp Arg Asp Ala Phe Phe Asn Pro Ala Thr Arg Ser
             165   170   175

Arg Ile Val Tyr Phe Ile Leu Ser Arg Val Lys Tyr Gln Val Ile Asn
             180   185   190

Asn Val Ser Lys Phe Gly Ile Asn Arg Leu Val Asn Ser Gly Ile Tyr
          195   200   205

Lys Ala Ala Phe Pro Leu His Asp Cys Lys Phe Arg Arg Gln Ser Glu
          210   215   220

Asp Pro Ser Cys Pro Asn Glu Arg Cys Leu Leu Tyr Arg Glu Trp Ala
225   230   235   240

His Pro Arg Ser Ile Tyr Lys Lys Gln Pro Leu Asp Leu Ile Arg Lys
             245   250   255

Tyr Tyr Gly Glu Lys Ile Gly Ile Tyr Phe Ala Trp Leu Gly Tyr Tyr
          260   265   270

Thr Gln Met Leu Leu Leu Ala Ala Val Val Gly Val Ala Cys Phe Leu
          275   280   285

Tyr Gly Tyr Leu Asn Gln Asp Asn Cys Thr Trp Ser Lys Glu Val Cys
          290   295   300

His Pro Asp Ile Gly Gly Lys Ile Ile Met Cys Pro Gln Cys Asp Arg
305   310   315   320
Leu Cys Pro Phe Trp Lys Leu Asn Ile Thr Cys Glu Ser Ser Lys Lys
                325   330   335
Leu Cys Ile Phe Asp Ser Phe Gly Thr Leu Val Phe Ala Val Phe Met
                340   345   350
Gly Val Trp Asp Pro
            355

<210> 4277
<211> 113
<212> PRT
<213> Homo sapiens

<400> 4277
Met Pro Gln Leu Gly Phe Val Pro Ile Leu Phe Cys Leu Cys Arg Lys
  1   5   10   15
Ser Val Ser Asn His Ser Gly Pro Val Gln Cys Phe Trp Met Lys Gln
                20   25   30
Asn Cys Glu Thr His Thr Ala Leu Ser Thr Cys Leu Pro Trp Gly Glu
            35   40   45
Ser His Ile Asn Ile Ile Val Ser Tyr Leu His Ile Tyr Pro Cys Ser
          50   55   60
Cys Gly Trp Gln Gln Pro Arg Asp Lys Arg Gln Ile Lys Ser Ala Arg
65   70   75   80
Val Ser Leu Ala Arg Lys Gly Arg Val Gln Val Thr Leu Lys Gly Gln
                85   90   95
Glu Thr His Ser Arg Trp Gly Ile Pro Gly Val Pro Gly Ile Gly Pro
                100   105   110
Glu

<210> 4278
<211> 102

<212> PRT

<213> Homo sapiens

<400> 4278

| Met | Pro | Ala | Phe | Ser | Val | Pro | Cys | Ser | Arg | Thr | Val | Asn | Ser | Phe | Leu |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| Ser | Leu | Phe | Ser | Tyr | Ser | Cys | Leu | Ile | Asn | Asp | Ser | Ala | Ile | Asn | Cys |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| Asp | Glu | Cys | Phe | Arg | Phe | Met | Trp | Ser | Ile | Lys | Arg | Asp | Tyr | Thr | Ser |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| Trp | Asn | Phe | Val | Ala | Ile | Ser | Gln | Ala | Ser | Glu | Ile | Val | Tyr | Leu | Ser |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| Ile | Ser | Pro | Glu | Glu | Ser | Lys | Ile | Ile | Asp | Gly | Val | Trp | Ile | Gln | Lys |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

| Arg | Asp | Tyr | Phe | Ser | Leu | Ser | Leu | Arg | Leu | Leu | Asp | Ser | Ile | Leu | Gln |
| | | | | 85 | | | | | 90 | | | | | 95 | |

| Ser | Val | Met | Asp | His | Ile |
| | | | 100 | | |

<210> 4279

<211> 113

<212> PRT

<213> Homo sapiens

<400> 4279

| Met | Val | Ser | Asn | Thr | Cys | Cys | Arg | Leu | His | Val | Glu | Leu | Ser | Leu | Ile |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| Ser | Pro | Arg | Val | Gly | Met | Ser | Arg | Gly | Gly | Leu | Met | Phe | Leu | Pro | Leu |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| Thr | Leu | Leu | Ser | Ser | Pro | Gly | Gln | Asp | Phe | Glu | Trp | Arg | Val | Trp | Gly |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| Ile | Leu | Leu | Ala | Val | Ala | Leu | Gly | Thr | Leu | Ala | Thr | Pro | Phe | Ala | Leu |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| Pro | Cys | Val | Val | Gly | Gln | Tyr | Leu | Glu | Trp | Ser | Gly | Gln | Thr | Arg | Glu |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

Thr Tyr Arg Arg Ser Arg Gly His Ser Asp Ala His Arg Pro Leu Ser
              85   90   95

Val Gly Arg Leu Gly Cys Asp Leu Phe Arg Arg Ser Gly Val His Thr
         100   105   110

Val

<210> 4280
<211> 102
<212> PRT
<213> Homo sapiens

<400> 4280
Met Lys Thr Gly Arg Ser His Thr Leu Arg Ser Glu Ala Gln Gly His
 1   5   10   15

His Lys Pro Gly Arg His Glu Ala Arg Pro Glu Arg His Arg Gln Ala
         20   25   30

Glu Glu Trp Thr Glu Glu Gln Gln Arg Ser Leu Glu Asp Glu Ser Gln
        35   40   45

Leu Cys Lys Glu Leu Pro Arg Val Phe Leu Pro Gln Lys Phe His Leu
    50   55   60

Ala Thr Glu Met Ala Leu Ala Leu Gly Gln Glu Arg Gly Gly Asp Glu
65   70   75   80

Leu Leu Met Ala Met Thr Phe Ser Gln His Val Leu Pro Val Leu Pro
        85   90   95

Arg Val Glu Met Pro Leu
        100

<210> 4281
<211> 169
<212> PRT
<213> Homo sapiens

<400> 4281

Met His Ala Asp Pro Ala Ala Pro Arg Gly Cys His Arg Phe Pro Pro
1   5   10   15

Ser Gln Thr Gln His Thr Leu Pro Ala Trp Arg Cys Ala Ala Pro Ser
                20   25   30

Leu Trp Ser Arg Val Trp Gln Ser Ala His Gln Phe Leu Leu Leu Pro
            35   40   45

Trp Asp Leu Pro Ala Phe Ser Thr Ala Ile His Ser Ala Asn Trp Asp
        50   55   60

Cys Trp Ser Pro Tyr Leu Ala Ala Ser Asp Lys Val Arg Ala Thr Pro
65   70   75   80

Gly Arg Glu Asp Thr Cys Gly Glu Asn Ser Cys Val Ile Tyr Phe Ser
                85   90   95

Phe Gly Ile Gly Cys Leu Gln Arg Phe Met Gly Gly Gly Gly Leu Met
                100   105   110

Leu Arg Ala Gln Lys Phe Gln Gly His Leu Gly Arg Pro Asp Ile Gln
            115   120   125

Arg Pro Ser Arg Cys Ala Cys Ser Met Tyr Gln Gly Arg Arg Phe Ser
    130   135   140

Gln Gln Gly Trp Cys His Trp His Asp Arg Pro Ala Leu Ala Glu Arg
145   150   155   160

Ser Pro Val Phe Gly Val Gln Pro Pro
            165

<210> 4282

<211> 285

<212> PRT

<213> Homo sapiens

<400> 4282

Met Phe Thr Ser Gln Gln Trp Lys His Leu Ser Asn Asp Phe Leu Lys
1   5   10   15

Thr Gln Gln Glu Lys Arg His Ser Trp Phe Lys Ala Ser Gly Thr Ile
                20   25   30

Lys Lys Phe Arg Ala Gly Leu Ser Ile Phe Ser Pro Ile Pro Lys Ser
            35   40   45

Pro Ser Phe Pro Ile Ile Gln Asp Ser Met Leu Lys Gly Lys Leu Gly
     50   55   60

Val Pro Glu Leu Arg Val Gly Arg Leu Met Asn Arg Ser Ile Ser Cys
65   70   75   80

Thr Met Lys Asn Pro Lys Val Glu Val Phe Gly Tyr Pro Pro Ser Pro
            85   90   95

Gln Val Ser Gly His Cys Lys Asn Ile Pro Thr Leu Glu Tyr Gly Phe
         100   105   110

Leu Val Gln Ile Met Lys Tyr Ala Glu Gln Arg Ile Pro Thr Leu Asn
       115   120   125

Glu Tyr Cys Val Val Cys Asp Glu Gln His Val Phe Gln Asn Gly Ser
     130   135   140

Met Leu Lys Pro Ala Val Cys Thr Arg Glu Leu Cys Val Phe Ser Phe
145   150   155   160

Tyr Thr Leu Gly Val Met Ser Gly Ala Ala Glu Glu Val Ala Thr Gly
         165   170   175

Ala Glu Val Val Asp Leu Leu Val Ala Met Cys Arg Ala Ala Leu Glu
         180   185   190

Ser Pro Arg Arg Ser Ile Ile Phe Glu Pro Tyr Pro Ser Val Val Asp
         195   200   205

Pro Thr Asp Pro Lys Thr Leu Ala Phe Asn Pro Lys Lys Lys Asn Tyr
     210   215   220

Glu Arg Leu Gln Lys Ala Leu Asp Ser Val Met Ser Ile Arg Glu Met
225   230   235   240

Thr Gln Gly Ser Tyr Leu Glu Ile Lys Lys Gln Met Asp Lys Leu Asp
         245   250   255

Pro Leu Ala His Pro Leu Leu Gln Trp Ile Ile Ser Ser Asn Arg Ser
         260   265   270

His Ile Val Lys Leu Pro Leu Ser Arg Trp Val Pro His
         275   280   285

<210> 4283

<211> 121

<212> PRT

<213> Homo sapiens

<400> 4283

```
Met Pro Arg Gly Val Gln Ile Lys Lys Arg Ala Cys Ala Gln Met Trp
1               5               10              15
Ala Gln Val Ser Gln Arg Gly Lys Ser Ser Phe Trp Pro Ser Leu Gln
            20              25              30
His Ala Leu Gly Pro Ser Asn Ile Ser Lys Ile Arg Lys Glu Leu Phe
            35              40              45
Ser Ser His Gln Tyr Leu Leu Cys Phe Gln Thr Ile Phe Phe Ala Asn
            50              55              60
Leu Pro Cys Gln Cys Ser Val Pro Pro Cys Pro His Thr Ser Ser Ala
65              70              75              80
Gly Arg Ala Ala Leu Glu Thr Val Leu Ser Ile Pro Cys Gly Glu Arg
                85              90              95
Gly Thr Ala Ala Pro Leu Val Ser Ala Glu Ile Gln Ser Ser Ile Ser
                100             105             110
Ser Leu Lys Gly Asp Phe Leu His Thr
            115             120
```

<210> 4284

<211> 119

<212> PRT

<213> Homo sapiens

<400> 4284

```
Met Ile Asn Glu Ser Gly Thr Glu Leu Gln Asp Lys Tyr Cys Tyr Arg
1               5               10              15
Ala Ser Pro Ala Ala Gln Ile Thr Gly Lys Ile Ser Pro Arg Leu Phe
            20              25              30
Ile Ser Pro Leu Pro Pro Trp Pro Ser Gly Ser Ser Gln Gln Ser Arg
            35              40              45
Ile His Pro Ser Pro Phe Pro Arg Pro His Pro Ser Leu Ser Ser Gln
            50              55              60
Arg Thr Ala Gly Glu Arg Gly Met Gln Ile Gly Pro Gly Ala Gly Gly
65              70              75              80
```

Pro Leu Cys Leu Ala Ala Leu Cys Leu Pro Ala Gln Leu Trp Arg Gln
                85   90   95
Pro Arg Gly Ala Gly Met Val Arg Val Met Leu Phe Ser Val Val Asp
                100   105   110
Glu Cys Leu Ala Leu Gln Thr
            115

<210> 4285
<211> 169
<212> PRT
<213> Homo sapiens

<400> 4285
Met Asn Ser Cys Arg Glu Gln Cys Pro Phe His Gly Trp Ala His Ser
1   5   10   15
Trp His Gln Leu Ser Trp Ser Asn Gly Asn Pro Ile Tyr Cys Thr Arg
                20   25   30
Asp Thr Phe Cys Gly Asp Ser Glu Met Gln Arg Asp Gln Ile Thr Ser
            35   40   45
Arg Lys Gly Arg Ala Trp Cys Glu Gly Thr Arg Leu Thr Asp Ile Pro
        50   55   60
Asp Asp Lys Pro Val Gly Pro Ser Gly Ser Leu Pro Pro Ala Ser His
65   70   75   80
Ser Gly Glu Gly Pro Val Ile Glu Ala Val Gly Ile Pro Glu Glu Arg
                85   90   95
Thr Gln Gln Lys Gln Val Glu Gly Val Gly Gln Arg Ala Asp Leu Pro
                100   105   110
Pro Ala Thr Leu Ser Tyr Cys Ser Ser Arg Gly Asn Asn Leu Gly Gly
            115   120   125
Cys His Glu Gly Phe Ser Gly Ala Pro Phe Pro Trp Gly Leu Met Glu
        130   135   140
Gly Gly Asn Cys Val Asn Val Val Trp Trp Lys Lys Gln Ala Trp Ser
145   150   155   160
Ala His Arg Leu Gly Val Pro Arg Ile
            165

<210> 4286
<211> 168
<212> PRT
<213> Homo sapiens

<400> 4286

```
Met Cys Ala Ser Thr Ser Arg Arg Ser Ser Thr Trp Pro Gln Pro Ala
 1               5                  10                  15
Trp Arg Gln Arg Ala Gly Ala Lys Ser Gln Arg Ser Arg Cys Ser Gly
                20                  25                  30
Ser Cys Cys Ser Leu Thr Ala Arg Pro Gln Pro Arg Val Ala Tyr Ala
         35                  40                  45
His Leu Met Ser Ser Leu Arg Ile Arg Arg Leu Ser Gly Arg Thr Trp

        50                  55                  60
Leu Ser Ser Leu Ala Asp Arg Arg Pro Arg Gln Arg Ala Gly Gln Leu
 65                  70                  75                  80
Pro Ser Cys Thr Thr Gln Gly Ser Thr Gln Pro Ala Gln Lys Thr Trp
                85                  90                  95
Pro His Gly Val Val Ser Gly Ser Ser Arg Thr Leu Trp His Ser Ala
               100                 105                 110
His Phe Arg Ser Gly Ser Thr Ser Pro Ser Lys Arg Ser Ser Ser Lys
            115                 120                 125
Pro Met Val Ala Ala Arg Pro Arg Gly Arg Arg Arg Ala Ala Gly Arg
        130                 135                 140
Pro Leu Pro Pro His Glu Ala Ala Gln Thr Gly Arg Leu Arg Arg Pro
145                 150                 155                 160
Arg Ala Arg Trp Leu Ser Pro Asp
                165
```


<210> 4287
<211> 495
<212> PRT

<213> Homo sapiens

<400> 4287

Met His His Trp Cys Ile Pro Phe Ser Val Asp Gly Gln Pro Ala Pro
1   5   10   15

Ser Leu Arg Trp Leu Phe Asn Gly Ser Val Leu Asn Glu Thr Ser Phe
                20   25   30

Ile Phe Thr Glu Phe Leu Glu Pro Ala Ala Asn Glu Thr Val Arg His
                35   40   45

Gly Cys Leu Arg Leu Asn Gln Pro Thr His Val Asn Asn Gly Asn Tyr
        50   55   60

Thr Leu Leu Ala Ala Asn Pro Phe Gly Gln Ala Ser Ala Ser Ile Met
65   70   75   80

Ala Ala Phe Met Asp Asn Pro Phe Glu Phe Asn Pro Glu Asp Pro Ile
                85   90   95

Pro Asp Thr Asn Ser Thr Ser Gly Asp Pro Val Glu Lys Lys Asp Glu
                100   105   110

Thr Pro Phe Gly Val Ser Val Ala Val Gly Leu Ala Val Phe Ala Cys
                115   120   125

Leu Phe Leu Ser Thr Leu Leu Leu Val Leu Asn Lys Cys Gly Arg Arg
        130   135   140

Asn Lys Phe Gly Ile Asn Arg Pro Ala Val Leu Ala Pro Glu Asp Gly
145   150   155   160

Leu Ala Met Ser Leu His Phe Met Thr Leu Gly Gly Ser Ser Leu Ser
                165   170   175

Pro Thr Glu Gly Lys Gly Ser Gly Leu Gln Gly His Ile Ile Glu Asn
                180   185   190

Pro Gln Tyr Phe Ser Asp Ala Cys Val His His Ile Lys Arg Arg Asp
                195   200   205

Ile Val Leu Lys Trp Gly Leu Gly Glu Gly Ala Phe Gly Lys Val Phe
        210   215   220

Leu Ala Glu Cys His Asn Leu Leu Pro Glu Gln Asp Lys Met Leu Val
225   230   235   240

Ala Val Lys Ala Leu Lys Glu Ala Ser Glu Ser Ala Arg Gln Asp Phe
                245   250   255

Gln Arg Glu Ala Glu Leu Leu Thr Met Leu Gln His Gln His Ile Val

```
                 260                    265                    270
Arg Phe Phe Gly Val Cys Thr Glu Gly Arg Pro Leu Leu Met Val Phe
        275                    280                    285
Glu Tyr Met Arg His Gly Asp Leu Asn Arg Phe Leu Arg Ser His Gly
    290                    295                    300
Pro Asp Ala Lys Leu Leu Ala Gly Gly Glu Asp Val Ala Pro Gly Pro
305                    310                    315                    320
Leu Gly Leu Gly Gln Leu Leu Ala Val Ala Ser Gln Val Ala Ala Gly
                325                    330                    335
Met Val Tyr Leu Ala Gly Leu His Phe Val His Arg Asp Leu Ala Thr
            340                    345                    350
Arg Asn Cys Leu Val Gly Gln Gly Leu Val Val Lys Ile Gly Asp Phe
        355                    360                    365
Gly Met Ser Arg Asp Ile Tyr Ser Thr Asp Tyr Tyr Arg Val Gly Gly
    370                    375                    380
Arg Thr Met Leu Pro Ile Arg Trp Met Pro Pro Glu Ser Ile Leu Tyr
385                    390                    395                    400
Arg Lys Phe Thr Thr Glu Ser Asp Val Trp Ser Phe Gly Val Val Leu
                405                    410                    415
Trp Glu Ile Phe Thr Tyr Gly Lys Gln Pro Trp Tyr Gln Leu Ser Asn
            420                    425                    430
Thr Glu Ala Ile Asp Cys Ile Thr Gln Gly Arg Glu Leu Glu Arg Pro
        435                    440                    445
Arg Ala Cys Pro Pro Glu Val Tyr Ala Ile Met Arg Gly Cys Trp Gln
    450                    455                    460
Arg Glu Pro Gln Gln Arg His Ser Ile Lys Asp Val His Ala Arg Leu
465                    470                    475                    480
Gln Ala Leu Ala Gln Ala Pro Pro Val Tyr Leu Asp Val Leu Gly
            485                    490                    495
```

<210> 4288

<211> 252

<212> PRT

<213> Homo sapiens

<400> 4288

```
Met Pro Ile Leu Gln Ala Leu Cys Leu Leu Pro Lys Val Ser Thr Pro
 1               5                  10                  15
Ser Ile Thr Val Pro Ser Pro Gln Arg Ser Ala Ala Leu Ser Ile Thr
                20                  25                  30
Val Pro Ser Pro Gln Arg Ser Ala Ala Pro Ser Ile Thr Val Pro Ser
            35                  40                  45
Pro Gln Arg Ser Ala Pro Arg Ala Ser Leu Cys Pro Pro His Lys Gly
        50                  55                  60
Gln His Pro Glu His His Cys Ala Leu Pro Pro Lys Gly Gln His Pro
65                  70                  75                  80
Glu His His Cys Ala Leu Pro Thr Lys Val Ser Thr Pro Ser Ile Thr
                85                  90                  95
Val Pro Ser Pro Gln Arg Ser Pro Gln Met Ser Leu Ser Ser Ala Ala
            100                 105                 110
Arg Gly Ser Asn Thr Asp Val Ala Gly Leu Ser Val Gly Glu Trp Pro
        115                 120                 125
Gly Trp Gln Leu Trp Gly Glu Gly Gln Asp Gly Ala Gln Gln Arg Pro
        130                 135                 140
His Leu Pro Ser Gly Gly Ser Gly Ala Gly Val Ala Pro Gln Arg Leu
145                 150                 155                 160
Pro Lys Ser Arg Ala Cys Ile Leu Cys Ser Arg His Gly Ala Gln Gly
                165                 170                 175
Pro Trp Val Thr Gly Arg Ser Val Ser His Ser His Cys Pro Ile Gln
                180                 185                 190
Gly Leu Leu Asp Leu Gln Arg Pro Asp Leu Gly Thr Asp Trp Gly Arg
            195                 200                 205
Thr Arg Pro Leu Cys Thr Pro Gln Asp Leu Cys Gly Gly Arg Pro Leu
        210                 215                 220
Pro Ser Thr Trp Gly Val Thr Met His Leu Ile His Cys Leu Ser Val
225                 230                 235                 240
Ser Leu Ser Leu Cys Leu Ser Leu Ser His Cys Val
                245                 250
```

<210> 4289

<211> 113

<212> PRT

<213> Homo sapiens

<400> 4289

Met Met Phe Leu Met Asn Thr Ser Pro Cys Pro Phe Phe Phe Phe
1   5   10   15

Arg Trp Ser Leu Ala Leu Ser Pro Arg Leu Glu Cys Ser Gly Thr Ile
            20   25   30

Ser Gly His Cys Asn Leu Arg Pro Pro Ala Ser Ser Asp Ser Pro Val
            35   40   45

Ser Ala Ser Arg Val Ala Arg Ile Thr Gly Ala Arg His Gln Ala Trp
        50   55   60

Leu Ile Phe Ile Phe Leu Val Glu Met Gly Phe Cys Leu Val Gly Gln
65   70   75   80

Ala Gly Leu Lys Leu Leu Thr Ser Gly Asp Pro Ser Thr Leu Ala Ser
                85   90   95

Gln Ser Ala Gly Thr Thr Gly Val Ser His His Ala Trp Ser Pro Thr
                100   105   110

Cys

<210> 4290

<211> 122

<212> PRT

<213> Homo sapiens

<400> 4290

Met Ser Tyr Gly Arg Pro Pro Pro Asp Val Glu Gly Met Thr Ser Leu
1   5   10   15

Lys Val Asp Asn Leu Thr Tyr Arg Thr Ser Pro Asp Thr Leu Arg Arg
            20   25   30

Val Phe Glu Lys Tyr Gly Arg Val Gly Asp Val Tyr Ile Pro Arg Asp
            35   40   45

Arg Tyr Thr Lys Glu Ser Arg Gly Phe Ala Phe Val Arg Gly Pro Gly

```
                50                       55                       60
Pro Gly Leu Gly Pro Gly Val Leu Pro Gln Cys Pro Arg Gly Asn Pro
 65                       70                       75                       80
Asn Pro Gly Arg Asp Arg Arg Val Pro Pro Ser Leu Leu Lys Arg Lys
                         85                       90                       95
Glu Arg Cys Pro Leu Lys Lys Met Val Met Ser Gly Asn Pro Arg His
                        100                      105                      110
Ile Thr Leu Ile His Lys Trp Asp Leu Gly
                        115                      120
```

<210> 4291

<211> 372

<212> PRT

<213> Homo sapiens

<400> 4291

```
Met Glu Pro Gly Arg Arg Gly Ala Ala Ala Leu Leu Ala Leu Leu Cys
  1                       5                       10                       15
Val Ala Cys Ala Leu Arg Ala Gly Arg Ala Gln Tyr Glu Arg Tyr Ser
                         20                       25                       30
Phe Arg Ser Phe Pro Arg Asp Glu Leu Met Pro Leu Glu Ser Ala Tyr
                 35                       40                       45
Arg His Ala Leu Asp Lys Tyr Ser Gly Glu His Trp Ala Glu Ser Val
         50                       55                       60
Gly Tyr Leu Glu Ile Ser Leu Arg Leu His Arg Leu Leu Arg Leu Phe
 65                       70                       75                       80
Gly Gly Leu Leu Arg Arg Ala His Cys Leu Lys Arg Cys Lys Gln Gly
                         85                       90                       95
Leu Pro Ala Phe Arg Gln Ser Gln Pro Ser Arg Glu Val Leu Ala Asp
                        100                      105                      110
Phe Gln Arg Arg Glu Pro Tyr Lys Phe Leu Gln Phe Ala Tyr Phe Lys
                115                      120                      125
Ala Asn Asn Leu Pro Lys Ala Ile Ala Ala Ala His Thr Phe Leu Leu
        130                      135                      140
Lys His Pro Asp Asp Glu Met Met Lys Arg Asn Met Ala Tyr Tyr Lys
```

```
     145                 150                 155                 160
Ser Leu Pro Gly Ala Glu Asp Tyr Ile Lys Asp Leu Glu Thr Lys Ser
                    165                 170                 175
Tyr Glu Ser Leu Phe Ile Arg Ala Val Arg Ala Tyr Asn Gly Glu Asn
                    180                 185                 190
Trp Arg Thr Ser Ile Thr Asp Met Glu Leu Ala Leu Pro Asp Phe Phe
                195                 200                 205
Lys Ala Phe Tyr Glu Cys Leu Ala Ala Cys Glu Gly Ser Arg Glu Ile

     210                 215                 220
Lys Asp Phe Lys Asp Phe Tyr Leu Ser Ile Ala Asp His Tyr Val Glu
225                 230                 235                 240
Val Leu Glu Cys Lys Ile Gln Cys Glu Glu Asn Leu Thr Pro Val Ile
                245                 250                 255
Gly Gly Tyr Pro Val Glu Lys Phe Val Ala Thr Met Tyr His Tyr Leu
                260                 265                 270
Gln Phe Ala Tyr Tyr Lys Leu Asn Asp Leu Lys Asn Ala Ala Pro Cys
                275                 280                 285
Ala Val Ser Tyr Leu Leu Phe Asp Gln Asn Asp Lys Val Met Gln Gln
                290                 295                 300
Asn Leu Val Tyr Tyr Gln Tyr His Arg Asp Thr Trp Gly Leu Ser Asp
305                 310                 315                 320
Glu His Phe Gln Pro Arg Pro Glu Ala Val Gln Phe Phe Asn Val Thr
                325                 330                 335
Thr Leu Gln Lys Glu Leu Tyr Asp Phe Ala Lys Glu Asn Ile Met Asp
                340                 345                 350
Asp Asp Glu Gly Glu Val Val Glu Tyr Val Asp Asp Leu Leu Glu Leu
                355                 360                 365
Glu Glu Thr Ser
     370
```

<210> 4292

<211> 230

<212> PRT

<213> Homo sapiens

<400> 4292

```
Met Arg Val Phe Ile Gln Ile Cys Phe Ser Tyr Phe Leu Val Asp Ser
 1               5                  10                  15
Ala Gly Gln Val Val Ala Asn Gln Glu Gly Val Phe Arg Ser Asn Cys

              20                  25                  30
Met Asp Cys Leu Asp Arg Thr Asn Val Ile Gln Ser Leu Leu Ala Arg
          35                  40                  45
Arg Ser Leu Gln Ala Gln Leu Gln Arg Leu Gly Val Leu His Val Gly
      50                  55                  60
Gln Lys Leu Glu Glu Gln Asp Glu Phe Glu Lys Ile Phe Lys Asn Ala
 65                  70                  75                  80
Trp Ala Asp Asn Ala Asn Ala Cys Ala Lys Gln Tyr Ala Gly Thr Gly
              85                  90                  95
Ala Leu Lys Thr Asp Phe Thr Arg Thr Gly Lys Arg Thr His Leu Gly
              100                 105                 110
Leu Ile Met Asp Gly Trp Asn Ser Met Ile Arg Tyr Tyr Lys Asn Asn
          115                 120                 125
Phe Ser Asp Gly Phe Arg Gln Asp Ser Ile Asp Leu Phe Leu Gly Asn
      130                 135                 140
Tyr Ser Val Asp Glu Leu Glu Ser His Ser Pro Leu Ser Val Pro Arg
145                 150                 155                 160
Asp Trp Lys Phe Leu Ala Leu Pro Ile Ile Met Val Val Ala Phe Ser
              165                 170                 175
Met Cys Ile Ile Cys Leu Leu Met Ala Gly Asp Thr Trp Thr Glu Thr
              180                 185                 190
Leu Ala Tyr Val Leu Phe Trp Gly Val Ala Ser Ile Gly Thr Phe Phe
          195                 200                 205
Ile Ile Leu Tyr Asn Gly Lys Asp Phe Val Asp Ala Pro Arg Leu Val
      210                 215                 220
Gln Lys Glu Lys Ile Asp
225                 230
```

<210> 4293

<211> 106

<212> PRT

<213> Homo sapiens

<400> 4293

Met Phe His Leu Gln Pro Arg Glu Ala Gln Lys Ser Ser Ser Ala Leu
1   5   10   15
Glu Val His Lys Lys Tyr Gly Asp Ser Thr Gly Thr Thr Leu Glu Glu
                20   25   30
Ala Gln Lys Ile Asn Asn Gly Ser Ser Gln Ala Asp Gly Thr Leu Lys
            35   40   45
Pro Val Asp Glu Lys Glu Glu Ala Val Ala Ala Glu Val Gly Trp Met
        50   55   60
Thr Ser Val Lys Asp Trp Ala Gly Val Met Ile Ser Ala Gln Thr Leu
65   70   75   80
Thr Gly Arg Val Leu Val Val Leu Val Phe Ala Leu Ser Ile Gly Ala
                85   90   95
Leu Val Ile Tyr Phe Ile Asp Ser Ser Lys
                100   105

<210> 4294

<211> 151

<212> PRT

<213> Homo sapiens

<400> 4294

Met Leu Arg Thr Leu Val Leu Lys Gln Thr Leu Asp Leu Leu Leu Pro
1   5   10   15
Leu Leu Glu Ala Leu Leu Val Leu Gly Val Pro Gln His Leu Glu Leu
                20   25   30
Gln Pro Leu Pro Val Gln Val Ser Leu Leu Leu Gln Leu Leu Asp
            35   40   45
Leu Gly Ser Leu Lys Ser His Arg Leu His His Phe His Ser Lys Ala
        50   . 55   60
Leu Gln Leu Pro Val Leu Asp His Leu Asp Phe Gln Asp Phe Gln Leu

```
        65                      70                      75                      80
Pro Trp Gln Gln Val Leu Ser Glu Leu Gln Trp Pro Gln Pro Leu Glu
                        85                      90                      95
Val Ala Val Leu Trp Leu Val Leu Val Val Arg Ala His Ile Leu Thr
                       100                     105                     110
Leu Leu Phe Leu Ser His Pro Val Thr Leu Leu Glu Ile Ala Ala Tyr
                   115                     120                     125
Pro Leu Leu Cys Gln Pro Gln Ala Ala Ser Leu Gln Gln Ile Met Cys
               130                     135                     140
Tyr Ser His Pro Glu Ile Asp
145                     150
```

<210> 4295

<211> 229

<212> PRT

<213> Homo sapiens

<400> 4295

```
Met Ala Gln Gly Asp Ala Ala Ala Thr Ala Gly His Ala Gln Leu His
 1                   5                      10                      15
Cys Gly His Glu Thr Ser Glu Gly Cys Val Ser Pro Pro Gly Val Thr
                        20                      25                      30
Val Pro Trp Pro Thr Gln Gly Glu Arg Pro Val Gly Pro Asn Ala Glu
               35                      40                      45
Glu Arg Lys Arg Arg Ala Thr Leu Gln Trp Gly Arg Gly Ala Lys Lys
           50                      55                      60
Gly Pro Arg Asn Pro Thr Pro Glu Asn Ser Arg Arg Leu Gly Arg Gln
65                      70                      75                      80
Gly Ala Leu Val Gln Glu Arg Ser Phe Lys Lys Phe Gly Ala Arg Arg
                        85                      90                      95
Ala Leu Asn Ser Pro Val Lys Lys Thr Glu Gln Gln Phe Gly Gly Thr
                       100                     105                     110
Arg Leu Pro Gly His Asn Gly Arg Thr Glu Ala Arg Asp Arg Glu Pro
               115                     120                     125
Leu Arg Arg Arg Pro Thr Pro Leu Thr Ile His Arg Phe Pro Gly Gly
```

```
        130                  135                  140
Glu Ala Pro Lys His Ile Gly Ser Trp Leu Tyr Ser Ala Ala Val Pro
145                  150                  155                  160
Arg Pro Lys Ser Arg Pro Ala Ser Cys Cys Pro His Ser Leu Arg His
                165                  170                  175
Arg Pro Leu Thr Ser Ser Pro Arg Ser Ser Gln Ser Cys Cys Gln Leu
                180                  185                  190
Phe Gly Val His Arg Gln Arg Pro Ile Arg Ala Gly Leu Arg Gly Arg
            195                  200                  205
His Ala Ser Glu Gly Arg Lys Arg Arg Gly Gly Gly Arg Val Arg Glu
            210                  215                  220
Pro Arg Arg Leu Gln
225
```

<210> 4296

<211> 125

<212> PRT

<213> Homo sapiens

<400> 4296

```
Met Cys Pro Arg Leu Ala Glu Val Leu Pro Leu Asn Ala Ala Gly Gln
 1                   5                  10                  15
Asp Ala Thr Leu Ser Thr Ile Ser Ser Val Pro Gly Ile Pro Pro Thr
                20                  25                  30
His Thr His Ile His Ser Leu Leu Leu Thr Ser Ser His Thr Leu Thr
            35                  40                  45
His Pro Thr Thr Leu Thr His Phe Gln Asn Pro Pro Thr Leu Thr Leu
            50                  55                  60
Thr Leu Ala Ser Pro Phe Pro Cys Ser Val Thr Ser Leu Gln Val Pro
65                  70                  75                  80
Ala Pro His Ser Leu Leu Gln Ser Gln Pro Pro Trp Cys Gln Pro Ser
                85                  90                  95
Leu Val Pro Ala Ile Ser Pro Lys Tyr Pro Pro Phe Trp Ala Pro Phe
                100                 105                 110
Cys Pro Glu Gly Pro Glu Val Ser Leu Gly Ser Thr Cys
```

115   120   125

<210> 4297
<211> 188
<212> PRT
<213> Homo sapiens

<400> 4297

```
Met Ile Ala Cys Arg Ala Leu Thr Val Leu Thr Trp Thr His Val Arg
 1               5                  10                  15
Ile Asp Glu Gly His Val Pro Ala Met Phe Ala Gln Ser Ser Val Phe
                20                  25                  30
Arg Glu Leu Ile Thr Gly Val Ala Lys Ala Thr Gly Ala Thr His Leu
            35                  40                  45
Leu Ser Cys Phe Gln Val Arg Thr Ala Leu Val Trp Ala Ser Glu Thr
        50                  55                  60
Ala Arg Trp Ile Leu Gly Val Leu Ser Phe Glu Arg Ser Leu Ile Tyr
65                  70                  75                  80
His Gln Glu Lys Phe Val Ala Phe Ala Ser Ser Ile Gln Pro Arg Ile
                85                  90                  95
His Ser Ser Val Leu Trp Gly Asn Gln Gly Cys Gly Ser Thr Gln Glu
            100                 105                 110
Ser Cys Arg Pro Arg His Phe Leu Gly Asn Ala Leu Leu Arg Trp Arg
        115                 120                 125
Pro Ala Ala Cys Pro Gly Pro Glu Gly Ser Gly Ser Val Glu Gln Ser
        130                 135                 140
Trp Gly Leu Gly Ala Gly Arg Tyr Gly Thr Ser Cys Phe Leu Arg Gly
145                 150                 155                 160
Leu Arg Gly Arg Ala Gly Gly Leu Gly Arg Gly Arg Val Gly Ala Ile
                165                 170                 175
Asp Met Arg Thr Ser Ser Ser Ser Ser Ala Glu Leu
            180                 185
```

<210> 4298

<211> 518

<212> PRT

<213> Homo sapiens

<400> 4298

Met Val Gln Leu Val Leu Gln Tyr Arg Asp Tyr Gln Arg Ala Thr Gln
1   5   10   15

Arg Leu Ala Gly Ile Pro Glu Leu Leu Asn Lys Leu Arg Gln Ala Pro
              20   25   30

Asp Phe Tyr Val Glu Met Lys Trp Glu Phe Thr Ser Trp Val Pro Leu
            35   40   45

Val Ser Lys Met Cys Pro Ser Asp Val Tyr Arg Val Trp Lys Arg Gly
         50   55   60

Glu Ser Leu Arg Val Asp Thr Ser Leu Leu Gly Phe Glu His Met Thr
65   70   75   80

Trp Gln Arg Gly Arg Arg Ser Phe Ile Phe Lys Gly Gln Glu Ala Arg
                  85   90   95

Ala Leu Val Met Glu Val Asp His Asp Arg Gln Val Val His Val Glu
              100   105   110

Thr Leu Gly Leu Thr Leu Gln Glu Pro Glu Thr Leu Leu Ala Ala Met
              115   120   125

Arg Pro Ser Glu Glu His Val Ala Ser Arg Leu Thr Ser Pro Ile Val
         130   135   140

Ser Thr His Leu Asp Thr Arg Asn Val Ala Phe Glu Arg Asn Lys Cys
145   150   155   160

Gly Ile Trp Gly Trp Arg Ser Glu Lys Met Glu Thr Val Ser Gly Tyr
                  165   170   175

Glu Ala Lys Val Tyr Ser Ala Thr Asn Val Glu Leu Val Thr Arg Thr
              180   185   190

Arg Thr Glu His Leu Ser Asp Gln Asp Lys Ser Arg Ser Lys Ala Gly
              195   200   205

Lys Thr Pro Phe Gln Ser Phe Leu Gly Met Ala Gln Gln His Ser Ser
         210   215   220

His Thr Gly Ala Pro Val Gln Gln Ala Ala Ser Pro Thr Asn Pro Thr
225   230   235   240

Ala Ile Ser Pro Glu Glu Tyr Phe Asp Pro Asn Phe Ser Leu Glu Ser

```
                245                  250                  255
Arg Asn Ile Gly Arg Pro Ile Glu Met Ser Ser Lys Val Gln Arg Phe
            260                  265                  270
Lys Ala Thr Leu Trp Leu Ser Glu Glu His Pro Leu Ser Leu Gly Asp
            275                  280                  285
Gln Val Thr Pro Ile Ile Asp Leu Met Ala Ile Ser Asn Ala His Phe

    290                  295                  300
Ala Lys Leu Arg Asp Phe Ile Thr Leu Arg Leu Pro Pro Gly Phe Pro
305                  310                  315                  320
Val Lys Ile Glu Ile Pro Leu Phe His Val Leu Asn Ala Arg Ile Thr
                325                  330                  335
Phe Ser Asn Leu Cys Gly Cys Asp Glu Pro Leu Ser Ser Val Trp Val
            340                  345                  350
Pro Ala Pro Ser Ser Ala Val Ala Ala Ser Gly Asn Ser Phe Pro Cys
            355                  360                  365
Glu Val Asp Pro Thr Val Phe Glu Val Pro Asn Gly Tyr Ser Val Leu
        370                  375                  380
Gly Met Glu Arg Asn Glu Pro Leu Arg Asp Glu Asp Asp Asp Leu Leu
385                  390                  395                  400
Gln Phe Ala Ile Gln Gln Ser Leu Leu Glu Ala Gly Thr Glu Ala Glu
                405                  410                  415
Gln Val Thr Val Trp Glu Ala Leu Thr Asn Thr Arg Pro Gly Ala Arg
            420                  425                  430
Pro Pro Pro Gln Ala Thr Val Tyr Glu Glu Gln Leu Gln Leu Glu Arg
            435                  440                  445
Ala Leu Gln Glu Ser Leu Gln Leu Ser Thr Glu Pro Arg Gly Pro Gly
            450                  455                  460
Ser Pro Pro Arg Thr Pro Pro Ala Pro Gly Pro Pro Ser Phe Glu Glu
465                  470                  475                  480
Gln Leu Arg Leu Ala Leu Glu Leu Ser Ser Arg Glu Gln Glu Glu Arg
                485                  490                  495
Glu Arg Arg Gly Gln Gln Glu Glu Glu Tyr Leu Gln Arg Ile Leu Gln
            500                  505                  510
Leu Ser Leu Thr Glu His
        515
```

<210> 4299
<211> 163
<212> PRT
<213> Homo sapiens

<400> 4299

Met Pro Gly Val Ser Val Ala Ile Arg Leu Ser Tyr Phe Leu Pro Leu
1   5   10   15

Lys Leu Pro Pro Asn Thr Pro Gly Gly Leu Leu Pro Trp Ser Thr Leu
                20   25   30

Ala His Pro Leu Arg Asp Pro Arg Ala Ser Gly Gly Tyr Leu Val Glu
            35   40   45

Lys Arg Pro Ser Pro Ser Asp Ala Phe Pro Ser Trp Arg Cys Ser Gly
        50   55   60

Ala Trp Cys His Ala Gly Gly Gly Arg Gly Cys Arg Gly Ala His Ala
65   70   75   80

Trp Cys Pro Thr Ser Leu Val Leu Val Ser Ser Pro Asn Pro Thr Arg
                85   90   95

Gly Leu Ser Leu Val Trp Asp Arg Leu Gly Lys Cys Gly Ala Ser Met
            100   105   110

Ala Glu Ala Trp Leu Phe Glu Gly Val Thr Leu Gln Ser Leu Ser Gln
            115   120   125

Gly Trp Gly Trp Pro Cys Gly Pro Gly Val Ala Glu Ser Gly Thr Gly
        130   135   140

Val Gln Pro Ser Pro Thr Leu Trp Trp Ser Gly Ala Val Thr Ala Leu
145   150   155   160

Glu Pro Phe

<210> 4300
<211> 154
<212> PRT
<213> Homo sapiens

<400> 4300

Met Val Ala Arg Leu Pro Thr Pro Lys Leu Pro Arg Trp Leu Arg Val
1   5   10   15

Leu Thr Pro Arg Thr Pro Thr Pro Phe Cys Gly Pro Ser Ala Arg Trp
                20   25   30

Val Ala His Pro Asp Trp Ala Val Gly Ser Pro Leu Pro Arg Arg Gly
            35   40   45

Gly Thr Arg Gly Arg His Ala Ala Ala Gly Ala Gly Glu Thr Thr Glu
        50   55   60

Lys Glu Pro Ala Gly Gly Arg Lys Arg Pro Arg Pro Arg Pro Met Ala
65   70   75   80

Ala Gln Ser Leu Asp Arg Gly Phe Leu Glu Gly Ala Trp Asp Pro Cys
                85   90   95

Cys His Cys Leu Arg Leu Gly Ile His Ser Arg Leu Leu Asp Pro Ser
            100   105   110

Leu Gln Pro Arg Trp Asp Pro Cys Leu Leu Pro Leu Leu Pro Leu Ala
            115   120   125

Pro Gly Arg Gly Arg Ala Glu Glu Thr Ser Leu Glu Gln Pro Ser Ala
        130   135   140

Thr His Arg Gln Phe Pro Arg Arg Gly Gly
145   150

<210> 4301
<211> 155
<212> PRT
<213> Homo sapiens

<400> 4301

Met Leu Gly Cys Phe Met Asp Leu Leu Ser Ile Leu Met Ile Gln Asp
1   5   10   15

Ile Leu Ser Met Pro Val Leu Phe Ser Leu Gly Leu Cys Phe His Ser
                20   25   30

Lys Leu Leu Arg Cys Ser Pro Asn Pro Gly Glu Asn Lys Ile His Tyr
            35   40   45

Gln Ile Gln Gln Val Gln Pro Ser Trp Ser Ser Leu Arg Ser His Arg
          50   55   60

Val Ala Pro Trp Asn Asp Ala Ser Leu Cys Gln Gly Pro Pro Phe Gly
 65   70   75   80

Ile Gly Arg Val Leu Gly Arg Ile Leu His Leu Gln Arg Pro Leu Gly
                  85   90   95

Ser Leu Arg Ser Gly Gly Gly Trp Thr Gln Lys Gly Arg Leu Asn Thr
                  100   105   110

Arg Trp Gly Arg Lys Asn Val Thr Ile Gly Ser Gln Thr Glu Ala Ser
                  115   120   125

Pro Leu Lys Tyr Gly Val Gly Gly Leu Thr Ser Ala Leu Trp Asn Val
          130   135   140

Leu Ser Asp Cys Cys Arg Val Pro Gly Pro Pro
145   150   155

<210> 4302

<211> 443

<212> PRT

<213> Homo sapiens

<400> 4302

Met Ser Gln Arg Asp Gly Val Cys Gly Ser His Glu Val Ala Gly Ala
 1   5   10   15

Ala Ser Pro Gly Ala Asp Gly Gly Leu Ser Leu Ala Ala Tyr Cys Lys
                  20   25   30

Asn Ser Val Asp Gly Leu Trp Tyr Cys Phe Asp Asp Ser Asp Val Gln
          35   40   45

Gln Leu Ser Glu Asp Glu Val Cys Thr Gln Thr Ala Tyr Ile Leu Phe
          50   55   60

Tyr Gln Arg Arg Thr Ala Ile Pro Ser Trp Ser Ala Asn Ser Ser Val
 65   70   75   80

Ala Gly Ser Thr Ser Ser Ser Leu Cys Glu His Trp Val Ser Arg Leu
                  85   90   95

Pro Gly Ser Lys Pro Ala Ser Val Thr Ser Ala Ala Ser Ser Arg Arg
                  100   105   110

Thr Ser Leu Ala Ser Leu Ser Glu Ser Val Glu Met Thr Gly Glu Arg
     115   120   125

Ser Glu Asp Asp Gly Gly Phe Ser Thr Arg Pro Phe Val Arg Ser Val
     130   135   140

Gln Arg Gln Ser Leu Ser Ser Arg Ser Ser Val Thr Ser Pro Leu Ala
145   150   155   160

Val Asn Glu Asn Cys Met Arg Pro Ser Trp Ser Leu Ser Ala Lys Leu
          165   170   175

Gln Met Arg Ser Asn Ser Pro Ser Arg Phe Ser Gly Asp Ser Pro Ile
          180   185   190

His Ser Ser Ala Ser Thr Leu Glu Lys Ile Gly Glu Ala Ala Asp Asp
          195   200   205

Lys Val Ser Ile Ser Cys Phe Gly Ser Leu Arg Asn Leu Ser Ser Ser
     210   215   220

Tyr Gln Glu Pro Ser Asp Ser His Ser Arg Arg Glu His Lys Ala Val
225   230   235   240

Gly Arg Ala Pro Leu Ala Val Met Glu Gly Val Phe Lys Asp Glu Ser
          245   250   255

Asp Thr Arg Arg Leu Asn Ser Ser Val Val Asp Thr Gln Ser Lys His
          260   265   270

Ser Ala Gln Gly Asp Arg Leu Pro Pro Leu Ser Gly Pro Phe Asp Asn
          275   280   285

Asn Asn Gln Ile Ala Tyr Val Asp Gln Ser Asp Ser Val Asp Ser Ser
     290   295   300

Pro Val Lys Glu Val Lys Ala Pro Ser His Pro Gly Ser Leu Ala Lys
305   310   315   320

Lys Pro Glu Ser Thr Thr Lys Arg Ser Pro Ser Ser Lys Gly Thr Ser
          325   330   335

Glu Pro Glu Lys Ser Leu Arg Lys Gly Arg Pro Ala Leu Ala Ser Gln
          340   345   350

Glu Ser Ser Leu Ser Ser Thr Ser Pro Ser Ser Pro Leu Pro Val Lys
          355   360   365

Val Ser Leu Lys Pro Ser Arg Ser Arg Ser Lys Ala Asp Ser Ser Ser
     370   375   380

Arg Gly Ser Gly Arg His Ser Ser Pro Ala Pro Ala Gln Thr Gln Phe
385   390   395   400

Pro Ser Gly Glu Pro Gly Pro Ser Arg Gly Gly Gln Gly Gly Arg Glu
            405   410·   415

Ala Arg Ala Glu Leu Leu His Gly Gln Pro Ala Leu Pro Gln His Lys
            420   425   430

His Gln Val Trp Phe Glu Glu Gly Gln Gln Val
            435   440

<210> 4303

<211> 156

<212> PRT

<213> Homo sapiens

<400> 4303

Met Tyr Thr Ser Leu His Thr Gln Ile Pro Glu Asn Gly Ile Ala Gly
 1   5   10   15

Leu Tyr Asp Asn Phe Ile Phe Leu Phe Phe Leu Arg Gln Asp Leu Phe
                20   25   30

Leu Ser Pro Arg Leu Gly Cys Gly Gly Ala Ile Met Ala His Cys Ser
            35   40   45

Leu Asp Ile Leu Gly Ser Ser Asn Pro Pro Ile Ser Ala Ser Gln Val
        50   55   60

Ala Gly Thr Thr Gly Thr Cys His Tyr Thr Trp Leu Ile Phe Val Phe
65   70   75   80

Phe Val Glu Val Gly Ser Pro Tyr Phe Ser Gln Ala Gly Leu Lys Leu
                85   90   95

Leu Ser Ser Asp Asn Ser Leu Thr Ser Ala Ser Gln Ser Val Gly Ile
            100   105   110

Ile Gly Met Ile His His Thr Gln Pro Tyr Leu Ile Phe Asn Ile Leu
            115   120   125

Gly Asn Leu Tyr Pro Asn Phe Leu Gly Gly Cys Ile Ile Leu Phe Tyr
        130   135   140

Gln Gln Cys Met Gly Val Pro Asn Ala Leu His Pro
145   150   155

<210> 4304

<211> 172

<212> PRT

<213> Homo sapiens

<400> 4304

Met Ser Ser Gly Asn Tyr Gln Gln Ser Glu Ala Leu Ser Lys Pro Thr

1   5   10   15

Phe Ser Glu Glu Gln Ala Ser Ala Leu Val Glu Ser Val Phe Gly Leu

              20   25   30

Lys Val Ser Lys Val Arg Pro Leu Pro Ser Tyr Asp Asp Gln Asn Phe

          35   40   45

His Val Tyr Val Ser Lys Thr Lys Asp Gly Pro Thr Glu Tyr Val Leu

        50   55   60

Lys Ile Ser Asn Thr Lys Ala Ser Lys Asn Pro Asp Leu Ile Glu Val

65   70   75   80

Gln Asn His Ile Ile Met Phe Leu Lys Ala Ala Gly Phe Pro Thr Ala

              85   90   95

Ser Val Cys His Thr Lys Gly Asp Asn Thr Ala Ser Leu Val Ser Val

          100   105   110

Asp Ser Gly Ser Glu Ile Lys Ser Tyr Leu Val Arg Leu Leu Thr Tyr

        115   120   125

Leu Pro Gly Arg Pro Ile Ala Glu Leu Pro Val Ser Pro Gln Leu Leu

      130   135   140

Tyr Glu Ile Gly Lys Leu Ala Ala Lys Leu Asp Lys Thr Leu Gln Glu

145   150   155   160

Gly Lys Pro Arg Val Thr Pro Leu Leu Ala Lys Asn

              165   170

<210> 4305

<211> 150

<212> PRT

<213> Homo sapiens

<400> 4305

Met Leu Gln Phe Pro Leu Asp Leu Ala Val Gln Asn Val Val Cys Pro
1   5   10   15

Val Ser Val Thr Glu Arg Gly Phe Pro Ser Leu Phe Phe Cys Gln Tyr
                20   25   30

Ser Ala Asp Leu Trp Asn Ile Gly Ile Ser Val Phe Ile Gln Asp Gly
                35   40   45

Pro Phe Leu Val Val Arg Leu Ile Leu Met Thr Tyr Phe Lys Val Ile
                50   55   60

Asn Gln Met Leu Val Phe Phe Ala Ala Lys Asn Phe Leu Val Val Val
65   70   75   80

Leu Gln Leu Tyr Arg Leu Val Val Leu Ala Leu Ala Val Arg Ala Ser
                        85   90   95

Leu Arg Ser Gln Ser Glu Gly Leu Lys Gly Glu His Gly Cys Arg Ala
                100   105   110

Gln Thr Ser Glu Ser Gly Pro Ser Gln Arg Asp Trp Gln Asn Glu Ser
                115   120   125

Lys Glu Gly Leu Ala Ile Pro Leu Arg Gly Ser Pro Val Thr Ser Asp
                130   135   140

Asp Ser His His Thr Pro
145   150

<210> 4306
<211> 803
<212> PRT
<213> Homo sapiens

<400> 4306

Met Ala Glu Arg Gly Gly Asp Gly Gly Glu Ser Glu Arg Phe Asn Pro
1   5   10   15

Gly Glu Leu Arg Met Ala Gln Gln Gln Ala Leu Arg Phe Arg Gly Pro
                20   25   30

Ala Pro Pro Pro Asn Ala Val Met Arg Gly Pro Pro Pro Leu Met Arg
                35   40   45

Pro Pro Pro Pro Phe Gly Met Met Arg Gly Pro Pro Pro Pro Pro Arg

```
            50                    55                    60
Pro Pro Phe Gly Arg Pro Pro Phe Ile Leu Ile Cys Arg Gln Tyr Leu
65                    70                    75                    80
Gln Arg Pro Pro Phe Met Pro Pro Pro Met Ser Ser Met Pro Pro Pro
                     85                    90                    95
Pro Gly Met Met Phe Pro Pro Gly Met Pro Pro Val Thr Ala Pro Gly
                    100                   105                   110
Thr Pro Ala Leu Pro Pro Thr Glu Glu Ile Trp Val Glu Asn Lys Thr
                    115                   120                   125
Pro Asp Gly Lys Val Tyr Tyr Tyr Asn Ala Arg Thr Arg Glu Ser Ala
             130                   135                   140
Trp Thr Lys Pro Asp Gly Val Lys Val Ile Gln Gln Ser Glu Leu Thr
145                   150                   155                   160
Pro Met Leu Ala Ala Gln Ala Gln Val Gln Ala Gln Ala Gln Ala Gln
                    165                   170                   175
Ala Gln Ala Gln Ala Gln Ala Gln Ala Gln Ala Gln Ala Gln Ala Gln
                    180                   185                   190
Ala Gln Ala Gln Ala Gln Ala Gln Ala Gln Ala Gln Ala Gln Ala Gln
             195                   200                   205
Ala Gln Ala Gln Ala Gln Ala Gln Ala Gln Ala Gln Ala Gln Ala Gln
             210                   215                   220
Ala Gln Ala Gln Val Gln Ala Gln Val Gln Ala Gln Val Gln Ala Gln
225                   230                   235                   240
Ala Val Gly Ala Ser Thr Pro Thr Thr Ser Ser Pro Ala Pro Ala Val
                    245                   250                   255
Ser Thr Ser Thr Ser Ser Ser Thr Pro Ser Ser Thr Thr Ser Thr Thr
             260                   265                   270
Thr Thr Ala Thr Ser Val Ala Gln Thr Val Ser Thr Pro Thr Thr Gln
             275                   280                   285
Asp Gln Thr Pro Ser Ser Ala Val Ser Val Ala Thr Pro Thr Val Ser
             290                   295                   300
Val Ser Thr Pro Ala Pro Thr Ala Thr Pro Val Gln Thr Val Pro Gln
305                   310                   315                   320
Pro His Pro Gln Thr Leu Pro Pro Ala Val Pro His Ser Val Pro Gln
                    325                   330                   335
Pro Thr Thr Ala Ile Pro Ala Phe Pro Pro Val Met Val Pro Pro Phe
```

```
                340                    345                    350
Arg Val Pro Leu Pro Gly Met Pro Ile Pro Leu Pro Gly Val Leu Pro
            355                    360                    365
Gly Met Ala Pro Pro Ile Val Pro Met Ile His Pro Gln Val Ala Ile
        370                    375                    380
Ala Ala Ser Pro Ala Thr Leu Ala Gly Ala Thr Ala Val Ser Glu Trp
385                    390                    395                    400
Thr Glu Tyr Lys Thr Ala Asp Gly Lys Thr Tyr Tyr Tyr Asn Asn Arg
                405                    410                    415
Thr Leu Glu Ser Thr Trp Lys Lys Pro Gln Glu Leu Lys Glu Lys Glu
            420                    425                    430
Lys Leu Glu Glu Lys Ile Lys Glu Pro Ile Lys Glu Pro Ser Glu Glu
        435                    440                    445
Pro Ile Lys Glu Ile Lys Glu Glu Pro Lys Glu Glu Glu Met Thr Glu
    450                    455                    460
Glu Glu Lys Ala Ala Gln Lys Ala Lys Pro Val Ala Thr Ala Pro Ile
465                    470                    475                    480
Pro Gly Thr Pro Trp Cys Val Val Trp Thr Gly Asp Glu Arg Val Phe
            485                    490                    495
Phe Tyr Asn Pro Thr Thr Arg Leu Ser Met Trp Asp Arg Pro Asp Asp
        500                    505                    510
Leu Ile Gly Arg Ala Asp Val Asp Lys Ile Ile Gln Glu Pro Pro His
        515                    520                    525
Lys Lys Gly Met Glu Glu Leu Lys Lys Leu Arg His Pro Thr Pro Thr
    530                    535                    540
Met Leu Ser Ile Gln Lys Trp Gln Phe Ser Met Ser Ala Ile Lys Glu
545                    550                    555                    560
Glu Gln Glu Leu Met Glu Glu Ile Asn Glu Asp Glu Pro Val Lys Ala
            565                    570                    575
Lys Lys Arg Lys Arg Asp Asp Asn Lys Asp Ile Asp Ser Glu Lys Glu
        580                    585                    590
Ala Ala Met Glu Ala Glu Ile Lys Ala Ala Arg Glu Arg Ala Ile Val
        595                    600                    605
Pro Leu Glu Ala Arg Met Lys Gln Phe Lys Asp Met Leu Leu Glu Arg
    610                    615                    620
Gly Val Ser Ala Phe Ser Thr Trp Glu Lys Glu Leu His Lys Ile Val
```

```
625                   630                   635                   640
Phe Asp Pro Arg Tyr Leu Leu Leu Asn Pro Lys Glu Arg Lys Gln Val
                645                   650                   655
Phe Asp Gln Tyr Val Lys Thr Arg Ala Glu Glu Glu Arg Arg Glu Lys
                660                   665                   670
Lys Asn Lys Ile Met Gln Ala Lys Glu Asp Phe Lys Lys Met Met Glu
            675                   680                   685
Glu Ala Lys Phe Asn Pro Arg Ala Thr Phe Ser Glu Phe Ala Ala Lys
        690                   695                   700
His Ala Lys Asp Ser Arg Phe Lys Ala Ile Glu Lys Met Lys Asp Arg
705                   710                   715                   720
Glu Ala Leu Phe Asn Glu Phe Val Ala Ala Ala Arg Lys Lys Glu Lys
                725                   730                   735
Glu Asp Ser Lys Thr Arg Gly Glu Lys Ile Lys Ser Asp Phe Phe Glu
                740                   745                   750
Leu Leu Ser Asn His His Leu Asp Ser Gln Ser Arg Trp Ser Lys Val
            755                   760                   765
Lys Asp Lys Val Glu Ser Asp Pro Arg Tyr Lys Thr Val Asp Ser Ser
        770                   775                   780
Ser Met Arg Glu Asp Leu Phe Lys Gln Tyr Ile Glu Lys Ile Ala Lys
785                   790                   795                   800
Asn Leu Asp
```

<210> 4307

<211> 199

<212> PRT

<213> Homo sapiens

<400> 4307

```
Met Lys Ser Trp Leu Leu Arg Leu His Ser Glu Leu Glu His Asn Thr
1                   5                   10                  15
Thr Leu Phe Cys Glu Ser His Cys Pro Ser Leu Ala Leu Gly Ser Phe
                20                  25                  30
Cys Arg Leu Leu Leu Gly Pro Leu Thr Cys Pro His Gln Gln Thr Phe
```

                35   40   45
His Phe Gly Ala Arg Pro Asp Phe Leu Ala Leu Gln Gly Ala Pro Gly
        50   55   60
Ser Phe Ile Pro Cys Pro Gly Pro Gly Ile Ser Pro Phe Ser Arg Val
 65   70   75   80
Leu Trp Val Leu Thr Glu Tyr Trp Gly Pro Arg Pro Gly Cys Trp Val
                    85   90   95
Gly Ser Ala Leu Ile Ala Pro Gly Phe Gln Leu Thr Glu His Gly Cys
                    100   105   110
Thr Cys Pro Asp Thr Trp Arg His Leu Cys Pro Cys Pro Leu Ser Pro
            115   120   125
Gln Asp Pro Trp Ser Ser Pro Ser Leu Gly Arg Lys Pro Arg Gly Gly
        130   135   140
Gly Pro Gly Pro Gln Gly Cys Trp Glu Asp Met Gly Pro Val Cys Leu
145   150   155   160
Gln Leu Gly Gly Leu Gly Gly Ala Gly Asp Thr Arg Pro Gly Ala Gly
                    165   170   175
Gly Ala Gln Leu Arg Gly Arg Arg Arg Gly Leu Asp Glu Gly Gly Gly
                    180   185   190
Val Gln Trp Glu Gly Pro Cys
        195

<210> 4308

<211> 168

<212> PRT

<213> Homo sapiens

<400> 4308

Met Tyr Arg Val Met Trp Arg Glu Val Arg Arg Glu Val Gln Gln Thr
 1   5   10   15
His Ala Val Cys Cys Gln Gly Trp Lys Lys Arg His Pro Gly Ala Leu
                20   25   30
Thr Cys Glu Ala Ile Cys Ala Lys Pro Cys Leu Asn Gly Gly Val Cys
            35   40   45
Val Arg Pro Asp Gln Cys Glu Cys Ala Pro Gly Trp Gly Gly Lys His

```
              50                    55                    60
Cys His Val Asp Val Asp Glu Cys Arg Thr Ser Ile Thr Leu Cys Ser
 65                    70                    75                    80
His His Cys Phe Asn Thr Ala Gly Ser Phe Thr Cys Gly Cys Pro His
                      85                    90                    95
Asp Leu Val Leu Gly Val Asp Gly Arg Thr Cys Met Glu Gly Ser Pro
                     100                   105                   110
Glu Pro Pro Thr Ser Ala Ser Ile Leu Ser Val Ala Val Arg Glu Ala
                     115                   120                   125
Glu Lys Asp Glu Arg Ala Leu Lys Gln Glu Ile His Glu Leu Arg Gly
                     130                   135                   140
Arg Leu Glu Arg Leu Glu Gln Val Ser Gln Ala Cys Trp Val Gly Arg
145                   150                   155                   160
Gly Gln Thr Ser Leu Ser Ile Pro
                     165
```

<210> 4309

<211> 148

<212> PRT

<213> Homo sapiens

<400> 4309

```
Met Ser Leu Leu Gly Pro Lys Val Leu Leu Phe Leu Ala Ala Phe Ile
  1                    5                    10                    15
Ile Thr Ser Asp Trp Ile Pro Leu Gly Val Asn Ser Gln Arg Gly Asp
                      20                    25                    30
Asp Val Thr Gln Ala Thr Pro Glu Thr Phe Thr Glu Asp Pro Asn Leu
                      35                    40                    45
Val Asn Asp Pro Ala Thr Asp Glu Thr Glu Cys Trp Asp Glu Lys Phe
                      50                    55                    60
Thr Cys Thr Arg Leu Tyr Ser Val His Arg Pro Val Lys Gln Cys Ile
 65                    70                    75                    80
His Gln Leu Cys Phe Thr Ser Leu Arg Arg Met Tyr Ile Val Asn Lys
                      85                    90                    95
Glu Ile Cys Ser Arg Leu Val Cys Lys Glu His Glu Ala Met Lys Asp
```

```
                 100                     105                      110
Glu Leu Cys Arg Gln Met Ala Gly Leu Pro Pro Arg Arg Leu Arg Arg
                 115                     120                      125
Ser Asn Tyr Phe Arg Leu Pro Pro Cys Glu Asn Val Asp Leu Gln Arg
            130                     135                      140
Pro Asn Gly Leu
145
```

```
<210> 4310
<211> 106
<212> PRT
<213> Homo sapiens
```

```
<400> 4310
Met Glu Leu Trp Gly Arg Met Leu Trp Ala Leu Leu Ser Gly Pro Gly
    1                   5                       10                  15
Arg Arg Gly Ser Thr Arg Gly Trp Ala Phe Ser Ser Trp Gln Pro Gln
                 20                      25                      30
Pro Pro Leu Ala Gly Leu Ser Ser Ala Ile Glu Leu Val Ser His Trp
            35                      40                      45
Thr Gly Val Phe Glu Lys Arg Gly Ile Pro Glu Ala Arg Glu Ser Ser
        50                      55                      60
Glu Tyr Ile Val Ala His Val Leu Gly Ala Lys Thr Val Lys Phe Ser
   65                      70                      75                  80
Val Val Lys Arg Thr Gly Arg Gly Arg Arg Glu Asp Leu Gly Lys Gly
                     85                      90                      95
Tyr Pro Gly Phe Leu Phe Thr Lys Ser Ala
                 100                     105
```

```
<210> 4311
<211> 102
<212> PRT
<213> Homo sapiens
```

<400> 4311

Met Leu Leu Ala Gln Glu Glu Glu Glu Cys Arg Arg Glu Leu Leu Ser
1   5   10   15

Trp Val Pro Val Pro Gln Pro Pro Arg Glu Ser Cys Leu Asp Leu Leu
                20   25   30

Val Asp Gln Pro His Ser Leu Leu Ser Ile Leu Asp Ala Gln Thr Trp
            35   40   45

Leu Ser Gln Ala Thr Asp His Thr Phe Leu Gln Arg Ser His Tyr His
        50   55   60

His Gly Asp His Pro Ser Tyr Ala Lys Pro Arg Leu Pro Leu Pro Val
65   70   75   80

Phe Thr Val Arg His Tyr Ala Gly Thr Val Thr Tyr Gln Val Pro Gly
                85   90   95

Leu Arg Asp Arg Pro Gly
                100

<210> 4312
<211> 388
<212> PRT
<213> Homo sapiens

<400> 4312

Met Asp Lys Arg Val Lys Lys Leu Pro Leu Met Ala Leu Ser Thr Thr
1   5   10   15

Met Ala Glu Ser Phe Lys Glu Leu Asp Pro Asp Ser Ser Met Gly Lys
                20   25   30

Ala Leu Glu Met Ser Cys Ala Ile Gln Asn Gln Leu Ala Arg Ile Leu
            35   40   45

Ala Glu Phe Glu Met Thr Leu Glu Arg Asp Val Leu Gln Pro Leu Ser
        50   55   60

Arg Leu Ser Glu Glu Glu Leu Pro Ala Ile Leu Lys His Lys Lys Ser
65   70   75   80

Leu Gln Lys Leu Val Ser Asp Trp Asn Thr Leu Lys Ser Arg Leu Ser
                85   90   95

Gln Ala Thr Lys Asn Ser Gly Ser Ser Gln Gly Leu Gly Gly Ser Pro

```
            100                 105                 110
Gly Ser His Ser His Thr Thr Met Ala Asn Lys Val Glu Thr Leu Lys
            115                 120                 125
Glu Glu Glu Glu Glu Leu Lys Arg Lys Val Glu Gln Cys Arg Asp Glu


      130                 135                 140
Tyr Leu Ala Asp Leu Tyr His Phe Val Thr Lys Glu Asp Ser Tyr Ala
145                 150                 155                 160
Asn Tyr Phe Ile Arg Leu Leu Glu Ile Gln Ala Asp Tyr His Arg Arg
                  165                 170                 175
Ser Leu Ser Ser Leu Asp Thr Ala Leu Ala Glu Leu Arg Glu Asn His
                  180                 185                 190
Gly Gln Ala Asp His Ser Pro Ser Met Thr Ala Thr His Phe Pro Arg
            195                 200                 205
Val Tyr Gly Val Ser Leu Ala Thr His Leu Gln Glu Leu Gly Arg Glu
            210                 215                 220
Ile Ala Leu Pro Ile Glu Ala Cys Val Met Met Leu Leu Ser Glu Gly
225                 230                 235                 240
Met Lys Glu Glu Gly Leu Phe Arg Leu Ala Ala Gly Ala Ser Val Leu
                  245                 250                 255
Lys Arg Leu Lys Gln Thr Met Ala Ser Asp Pro His Ser Leu Glu Glu
                  260                 265                 270
Phe Cys Ser Asp Pro His Ala Val Ala Gly Ala Leu Lys Ser Tyr Leu
            275                 280                 285
Arg Glu Leu Pro Glu Pro Leu Met Thr Phe Asp Leu Tyr Asp Asp Trp
            290                 295                 300
Met Arg Ala Ala Ser Leu Lys Glu Pro Gly Ala Arg Leu Gln Ala Leu
305                 310                 315                 320
Gln Glu Val Cys Ser Arg Leu Pro Pro Glu Asn Leu Ser Asn Leu Arg
                  325                 330                 335
Tyr Leu Met Lys Phe Leu Ala Arg Leu Ala Glu Glu Gln Glu Val Asn
                  340                 345                 350
Lys Met Thr Pro Ser Asn Ile Ala Ile Val Leu Gly Pro Asn Leu Leu
            355                 360                 365
Trp Pro Pro Glu Lys Glu Gly Thr Glu Pro Ala Arg Glu Leu Gly Ser
            370                 375                 380
```

Gln Thr Leu Cys
385

<210> 4313
<211> 140
<212> PRT
<213> Homo sapiens

<400> 4313
Met Trp Pro Phe Arg Leu Arg Cys Pro Ile Tyr Phe Lys Thr Arg Leu
 1   5   10   15
Leu Tyr Ser Ser Ser Gln Asp Gly Phe Leu Ser Ser Ser Thr Asn Tyr
                20   25   30
Tyr Asn His Arg Thr Tyr Pro Gly Leu Val Asn Trp Leu Phe Val Leu
            35   40   45
Thr Glu Pro Glu Leu Thr Gly Glu Leu Gly Asp Asp Asp Arg Lys Gly
     50   55   60
Met His Thr Gly Gly Ile Ile Arg Trp Leu Gly Arg Pro Ser Ser Gln
 65   70   75   80
Leu Lys Pro Ile Phe His Ala Glu Glu Arg Arg Val Pro Pro Pro Pro
                85   90   95
Glu Arg Leu Val Gly Arg Ala Ser Pro Arg Glu Gln Ala Thr Val Phe
                100   105   110
Lys Arg Ile Cys Ala Pro Leu His Ala Glu Val Phe Cys Arg Ala Gly
                115   120   125
Leu Cys Ala Cys His Pro Asp Cys Thr Ala Ala Gly
            130   135   140

<210> 4314
<211> 113
<212> PRT
<213> Homo sapiens

<400> 4314

Met Cys Arg Leu Arg Glu Thr Ala Leu Ala Val Pro Gly Pro Pro Pro
1   5   10   15

Leu Gly Thr Asp Pro Trp Gly Ala Pro Phe Pro Pro Ser Phe Val Ser
            20   25   30

Ser Phe Phe Phe Phe Phe Phe Ser Glu Thr Glu Ser His Ser Val Ser
            35   40   45

Gln Ala Gly Val Gln Trp His Asp Ile Ser Ser Leu Gln Pro Pro Pro
        50   55   60

Ala Gly Leu Lys Gln Phe Ser Cys Leu Ser Leu Pro Ser Ser Trp Asp
65   70   75   80

Tyr Arg Ser Thr Pro Pro Cys Pro Ala Asn Phe Cys Ile Phe Ser Arg
                85   90   95

Asp Gly Val Ser Leu Cys Trp Pro Gly Trp Ser Pro Thr Pro Asp Leu
            100   105   110

Gly

<210> 4315

<211> 379

<212> PRT

<213> Homo sapiens

<400> 4315

Met Pro Lys His Pro Asn Ser Leu Ser Gly Lys Gly Thr Gln Leu Val
1   5   10   15

Pro Ser Ser His Leu Pro Pro Pro Lys Leu Arg Ile Pro Asn Val Phe
            20   25   30

Ser Ile Ser Val Ala Leu Ala Lys Arg His Leu Ser Gln Pro Gln Leu
            35   40   45

Ser Ser Asp Arg Met Phe Gly Thr Asn Arg Asn Ala Ile Ser Met Ile
        50   55   60

Arg Pro Leu Arg Pro Gln Glu Thr Asp Leu Asp Leu Val Asp Gly Asp
65   70   75   80

Ser Thr Glu Val Leu Glu Asn Met Asp Thr Ser Cys Asp Asp Gly Leu
                85   90   95

Phe Ser Tyr Asp Ser Leu Asp Ser Pro Asn Ser Asp Asp Gln Glu His
                100   105   110

Cys Asp Ser Ala Lys Lys Val Ala Tyr Ser Lys Pro Pro Thr Pro Pro
                115   120   125

Leu His Arg Phe Pro Ser Trp Glu Ser Arg Ile Tyr Ala Val Ala Lys
            130   135   140

Ser Gly Ile Arg Met Ser Glu Ala Phe Asn Met Glu Ser Val Asn Lys
145   150   155   160

Asn Ser Ala Ala Thr Leu Ser Tyr Thr Thr Ser Gly Leu Tyr Thr Ser
                    165   170   175

Leu Ile Tyr Lys Asn Met Thr Thr Pro Val Tyr Thr Thr Leu Lys Gly
                180   185   190

Lys Ala Thr Gln Ile Ser Ser Ser Pro Phe Leu Asp Asp Ser Ser Gly
            195   200   205

Ser Glu Glu Glu Asp Ser Ser Arg Ser Ser Ser Arg Thr Ser Glu Ser
            210   215   220

Asp Ser Arg Ser Arg Ser Gly Pro Gly Ser Pro Arg Ala Met Lys Arg
225   230   235   240

Gly Val Ser Leu Ser Ser Val Ala Ser Glu Ser Asp Tyr Ala Ile Pro
                    245   250   255

Pro Asp Ala Tyr Ser Thr Asp Thr Glu Tyr Ser Gln Pro Glu Gln Lys
                260   265   270

Leu Pro Lys Thr Cys Ser Ser Ser Ser Asp Asn Gly Lys Asn Glu Pro
            275   280   285

Leu Glu Lys Ser Gly Tyr Leu Leu Lys Met Ser Gly Lys Val Lys Ser
            290   295   300

Trp Lys Arg Arg Trp Phe Val Leu Lys Gly Gly Glu Leu Leu Tyr Tyr
305   310   315   320

Lys Ser Pro Ser Asp Val Ile Arg Lys Pro Gln Gly His Ile Glu Leu
                325   330   335

Ser Ala Ser Cys Ser Ile Leu Arg Gly Asp Asn Lys Gln Thr Val Gln
                340   345   350

Val Leu Asn Phe Phe Phe Phe Phe Phe Phe Leu Tyr His Ala Arg Leu
            355   360   365

Asn Ser Gln Leu Ser Asn Leu Met Glu Arg Arg
            370   375

<210> 4316
<211> 112
<212> PRT
<213> Homo sapiens

<400> 4316

Met Val Phe Pro Arg Leu Phe Thr Cys Pro Thr Leu Glu Thr Thr Asn
1   5   10   15

Phe Lys Val Gly Lys Trp His Ser Pro Pro Ala Leu Met Gly Pro Trp
                20   25   30

Glu Gly Pro Leu Ser Ala Arg Ala Cys Cys Gly Ser Gln Ser Ser Glu
            35   40   45

Pro Ala Ala Leu Arg Ser Leu Ser Ala Arg Ala Cys His Arg Pro Tyr
        50   55   60

Ser Ser Glu Pro Ala Ala Leu Arg Leu Leu Asn Lys Thr Leu Leu Arg
65   70   75   80

Ser Cys Cys Ala Ala Gln Gly Thr His Pro Gln Ala Val Leu Val Leu
                85   90   95

Val Gly Leu Pro Leu Ser His Gly Glu Thr His Arg Pro Thr Ser Val
                100   105   110

<210> 4317
<211> 209
<212> PRT
<213> Homo sapiens

<400> 4317

Met Ala Ser Met Gly Leu Gln Val Met Gly Ile Ala Leu Ala Val Leu
1   5   10   15

Gly Trp Leu Ala Val Met Leu Cys Cys Ala Leu Pro Met Trp Arg Val
                20   25   30

Thr Ala Phe Ile Gly Ser Asn Ile Val Thr Ser Gln Thr Ile Trp Glu
            35   40   45

```
Gly Leu Trp Met Asn Cys Val Val Gln Ser Thr Gly Gln Met Gln Cys
        50                  55                  60

Lys Val Tyr Asp Ser Leu Leu Ala Leu Pro Gln Asp Leu Gln Ala Ala
 65                  70                  75                  80

Arg Ala Leu Val Ile Ile Ser Ile Ile Val Ala Ala Leu Gly Val Leu
                    85                  90                  95

Leu Ser Val Val Gly Gly Lys Cys Thr Asn Cys Leu Glu Asp Glu Ser
                    100                 105                 110

Ala Lys Ala Lys Thr Met Ile Val Ala Gly Val Val Phe Leu Leu Ala
                    115                 120                 125

Gly Leu Met Val Ile Val Pro Val Ser Trp Thr Ala His Asn Ile Ile
        130                 135                 140

Gln Asp Phe Tyr Asn Pro Leu Val Ala Ser Gly Gln Lys Arg Glu Met
145                 150                 155                 160

Gly Ala Ser Leu Tyr Val Gly Trp Ala Ala Ser Gly Leu Leu Leu Leu
                    165                 170                 175

Gly Gly Gly Leu Leu Cys Cys Asn Ser Pro Pro Arg Thr Asp Lys Pro
                    180                 185                 190

Tyr Ser Ala Lys Tyr Ser Ala Ala Arg Ser Ala Ala Ala Ser Asn Tyr
                    195                 200                 205

Val
```

<210> 4318

<211> 559

<212> PRT

<213> Homo sapiens

<400> 4318

```
Met Pro Ser Gly Lys Trp Glu Ala Trp Gly Tyr Gly Lys Asp Gly Thr
 1                   5                   10                  15

Gly Ser Arg Lys Ala Gln Glu Lys Asn Ser Gly Ala Asn Ser Ser Ser
                    20                  25                  30

Leu Ser Thr Ala Ser Ala Pro Gly Ala Ala Pro Leu Thr Ile Ser Ser
        35                  40                  45
```

Pro Leu His Val Pro Ser Ser Leu Pro Gly Pro Ala Ser Ser Pro Met
     50   55   60

Pro Ile Pro Asn Ser Ser Pro Leu Ala Ser Pro Val Ser Ser Thr Val
65   70   75   80

Ser Val Pro Leu Ser Ser Ser Leu Pro Ile Ser Val Pro Thr Thr Leu
              85   90   95

Pro Ala Pro Ala Ser Ala Pro Leu Thr Ile Pro Ile Ser Ala Pro Leu
            100   105   110

Thr Val Ser Ala Ser Gly Pro Ala Leu Leu Thr Ser Val Thr Pro Pro
            115   120   125

Leu Ala Pro Val Val Pro Ala Ala Pro Gly Pro Pro Ser Leu Ala Pro
     130   135   140

Ser Gly Ala Ser Pro Ser Ala Ser Ala Leu Thr Leu Gly Leu Ala Thr
145   150   155   160

Ala Pro Ser Leu Ser Ser Ser Gln Thr Pro Gly His Pro Leu Leu Leu
            165   170   175

Ala Pro Thr Ser Ser His Val Pro Gly Leu Asn Ser Thr Val Ala Pro
            180   185   190

Ala Cys Ser Pro Val Leu Val Pro Ala Ser Ala Leu Ala Ser Pro Phe
            195   200   205

Pro Ser Ala Pro Asn Pro Ala Pro Ala Gln Ala Ser Leu Leu Ala Pro
     210   215   220

Ala Ser Ser Ala Ser Gln Ala Leu Ala Thr Pro Leu Ala Pro Met Ala
225   230   235   240

Ala Pro Gln Thr Ala Ile Leu Ala Pro Ser Pro Ala Pro Pro Leu Ala
            245   250   255

Pro Leu Pro Val Leu Ala Pro Ser Pro Gly Ala Ala Pro Val Leu Ala
            260   265   270

Ser Ser Gln Thr Pro Val Pro Val Met Ala Pro Ser Ser Thr Pro Gly
            275   280   285

Thr Ser Leu Ala Ser Ala Ser Pro Val Pro Ala Pro Thr Pro Val Leu
     290   295   300

Ala Pro Ser Ser Thr Gln Thr Met Leu Pro Ala Pro Val Pro Ser Pro
305   310   315   320

Leu Pro Ser Pro Ala Ser Thr Gln Thr Leu Ala Leu Ala Pro Ala Leu
            325   330   335

Ala Pro Thr Leu Gly Gly Ser Ser Pro Ser Gln Thr Leu Ser Leu Gly
            340   345   350

Thr Gly Asn Pro Gln Gly Pro Phe Pro Thr Gln Thr Leu Ser Leu Thr
            355   360   365

Pro Ala Ser Ser Leu Val Pro Thr Pro Ala Gln Thr Leu Ser Leu Ala
        370   375   380

Pro Gly Pro Pro Leu Gly Pro Thr Gln Thr Leu Ser Leu Ala Pro Ala
385   390   395   400

Pro Pro Leu Ala Pro Ala Ser Pro Val Gly Pro Ala Pro Ala His Thr
                405   410   415

Leu Thr Leu Ala Pro Ala Ser Ser Ser Ala Ser Leu Leu Ala Pro Ala
            420   425   430

Ser Val Gln Thr Leu Thr Leu Ser Pro Ala Pro Val Pro Thr Leu Gly
            435   440   445

Pro Ala Ala Ala Gln Thr Leu Ala Leu Ala Pro Ala Ser Thr Gln Ser
        450   455   460

Pro Ala Ser Gln Ala Ser Ser Leu Val Val Ser Ala Ser Gly Ala Ala
465   470   475   480

Pro Leu Pro Val Thr Met Val Ser Arg Leu Pro Val Ser Lys Tyr Glu
                485   490   495

Pro Asp Thr Leu Thr Leu Arg Ser Gly Pro Pro Ser Pro Pro Ser Thr
                500   505   510

Ala Thr Ser Phe Gly Gly Pro Arg Pro Arg Arg Gln Pro Pro Pro Pro
            515   520   525

Pro Arg Ser Pro Phe Tyr Leu Val Ser Phe Thr Ser Ser Arg Gly Asn
            530   535   540

Arg Lys Leu Ser Phe Phe Gly Val Leu Val Gly Trp Met Glu Gln
545   550   555

<210> 4319

<211> 962

<212> PRT

<213> Homo sapiens

<400> 4319

```
Met Asp Thr Asp Leu Tyr Asp Glu Phe Gly Asn Tyr Ile Gly Pro Glu
 1               5                  10                  15
Leu Asp Ser Asp Glu Asp Asp Asp Glu Leu Gly Arg Glu Thr Lys Asp
            20                  25                  30
Leu Asp Glu Met Asp Asp Asp Asp Asp Asp Asp Val Gly Asp His
        35                  40                  45
Asp Asp Asp His Pro Gly Met Glu Val Val Leu His Glu Val Tyr Gly
        50                  55                  60
Pro Glu Val Glu Thr Ile Val Gln Glu Glu Asp Thr Gln Pro Leu Thr
65                  70                  75                  80
Glu Pro Ile Ile Lys Pro Val Lys Thr Lys Lys Phe Thr Leu Met Glu
                85                  90                  95
Gln Thr Leu Pro Val Thr Val Tyr Glu Met Asp Phe Leu Ala Asp Leu
            100                 105                 110
Met Asp Asn Ser Glu Leu Ile Arg Asn Val Thr Leu Cys Gly His Leu
            115                 120                 125
His His Gly Lys Thr Cys Phe Val Asp Cys Leu Ile Glu Gln Thr His
        130                 135                 140
Pro Glu Ile Arg Lys Arg Tyr Asp Gln Asp Leu Cys Tyr Thr Asp Ile
145                 150                 155                 160
Leu Phe Thr Glu Gln Glu Arg Gly Val Gly Ile Lys Ser Thr Pro Val
                165                 170                 175
Thr Val Val Leu Pro Asp Thr Lys Gly Lys Ser Tyr Leu Phe Asn Ile
            180                 185                 190
Met Asp Thr Pro Gly His Val Asn Phe Ser Asp Glu Val Thr Ala Gly
            195                 200                 205
Leu Arg Ile Ser Asp Gly Val Val Leu Phe Ile Asp Ala Ala Glu Gly
        210                 215                 220
Val Met Leu Asn Thr Glu Arg Leu Ile Lys His Ala Val Gln Glu Arg
225                 230                 235                 240
Leu Ala Val Thr Val Cys Ile Asn Lys Ile Asp Arg Leu Ile Leu Glu
            245                 250                 255
Leu Lys Leu Pro Pro Thr Asp Ala Tyr Tyr Lys Leu Arg His Ile Val
            260                 265                 270
Asp Glu Val Asn Gly Leu Ile Ser Met Tyr Ser Thr Asp Glu Asn Leu
            275                 280                 285
```

Ile Leu Ser Pro Leu Leu Gly Asn Val Cys Phe Ser Ser Ser Gln Tyr
    290   295   300

Ser Ile Cys Phe Thr Leu Gly Ser Phe Ala Lys Ile Tyr Ala Asp Thr
305   310   315   320

Phe Gly Asp Ile Asn Tyr Gln Glu Phe Ala Lys Arg Leu Trp Gly Asp
            325   330   335

Ile Tyr Phe Asn Pro Lys Thr Arg Lys Phe Thr Lys Lys Ala Pro Thr
            340   345   350

Ser Ser Ser Gln Arg Ser Phe Val Glu Phe Ile Leu Glu Pro Leu Tyr
            355   360   365

Lys Ile Leu Ala Gln Val Val Gly Asp Val Asp Thr Ser Leu Pro Arg
    370   375   380

Thr Leu Asp Glu Leu Gly Ile His Leu Thr Lys Glu Glu Leu Lys Leu
385   390   395   400

Asn Ile Arg Pro Leu Leu Arg Leu Val Cys Lys Lys Phe Phe Gly Glu
            405   410   415

Phe Thr Gly Phe Val Asp Met Cys Val Gln His Ile Pro Ser Pro Lys
            420   425   430

Val Gly Ala Lys Pro Lys Ile Glu His Thr Tyr Thr Gly Gly Val Asp
            435   440   445

Ser Asp Leu Gly Glu Ala Met Ser Asp Cys Asp Pro Asp Gly Pro Leu
            450   455   460

Met Cys His Thr Thr Lys Met Tyr Ser Thr Asp Asp Gly Val Gln Phe
465   470   475   480

His Ala Phe Gly Arg Val Leu Ser Gly Thr Ile His Ala Gly Gln Pro
            485   490   495

Val Lys Val Leu Gly Glu Asn Tyr Thr Leu Glu Asp Glu Glu Asp Ser
            500   505   510

Gln Ile Cys Thr Val Gly Arg Leu Trp Ile Ser Val Ala Arg Tyr His
            515   520   525

Ile Glu Val Asn Arg Val Pro Ala Gly Asn Trp Val Leu Ile Glu Gly
            530   535   540

Val Asp Gln Pro Ile Val Lys Thr Ala Thr Ile Thr Glu Pro Arg Gly
545   550   555   560

Asn Glu Glu Ala Gln Ile Phe Arg Pro Leu Lys Phe Asn Thr Thr Ser
            565   570   575

Val Ile Lys Ile Ala Val Glu Pro Val Asn Pro Ser Glu Leu Pro Lys
       580   585   590

Met Leu Asp Gly Leu Arg Lys Val Asn Lys Ser Tyr Pro Ser Leu Thr
       595   600   605

Thr Lys Val Glu Glu Ser Gly Glu His Val Ile Leu Gly Thr Gly Glu
     610   615   620

Leu Tyr Leu Asp Cys Val Met His Asp Leu Arg Lys Met Tyr Ser Glu
625   630   635   640

Ile Asp Ile Lys Val Ala Asp Pro Val Val Thr Phe Cys Glu Thr Val
       645   650   655

Val Glu Thr Ser Ser Leu Lys Cys Phe Ala Glu Thr Pro Asn Lys Lys
       660   665   670

Asn Lys Ile Thr Met Ile Ala Glu Pro Leu Glu Lys Gly Leu Ala Glu
       675   680   685

Asp Ile Glu Asn Glu Val Val Gln Ile Thr Trp Asn Arg Lys Lys Leu
       690   695   700

Gly Glu Phe Phe Gln Thr Lys Tyr Asp Trp Asp Leu Leu Ala Ala Arg
705   710   715   720

Ser Ile Trp Ala Phe Gly Pro Asp Ala Thr Gly Pro Asn Ile Leu Val
       725   730   735

Asp Asp Thr Leu Pro Ser Glu Val Asp Lys Ala Leu Leu Gly Ser Val
       740   745   750

Lys Asp Ser Ile Val Gln Gly Phe Gln Trp Gly Thr Arg Glu Gly Pro
       755   760   765

Leu Cys Asp Glu Leu Ile Arg Asn Val Lys Phe Lys Ile Leu Asp Ala
       770   775   780

Val Val Ala Gln Glu Pro Leu His Arg Gly Gly Gly Gln Ile Ile Pro
785   790   795   800

Thr Ala Arg Arg Val Val Tyr Ser Ala Phe Leu Met Ala Thr Pro Arg
       805   810   815

Leu Met Glu Pro Tyr Tyr Phe Val Glu Val Gln Ala Pro Ala Asp Cys
       820   825   830

Val Ser Ala Val Tyr Thr Val Leu Ala Arg Arg Arg Gly His Val Thr
       835   840   845

Gln Asp Ala Pro Ile Pro Gly Ser Pro Leu Tyr Thr Ile Lys Ala Phe
       850   855   860

Ile Pro Ala Ile Asp Ser Phe Gly Phe Glu Thr Asp Leu Arg Thr His
865   870   875   880

Thr Gln Gly Gln Ala Phe Ser Leu Ser Val Phe His His Trp Gln Ile
                885   890   895

Val Pro Gly Asp Pro Leu Asp Lys Ser Ile Val Ile Arg Pro Leu Glu
                900   905   910

Pro Gln Pro Ala Pro His Leu Ala Arg Glu Phe Met Ile Lys Thr Arg
                915   920   925

Arg Arg Lys Gly Leu Ser Glu Asp Val Ser Ile Ser Lys Phe Phe Asp
        930   935   940

Asp Pro Met Leu Leu Glu Leu Ala Lys Gln Asp Val Val Leu Asn Tyr
945   950   955   960

Pro Met

<210> 4320

<211> 281

<212> PRT

<213> Homo sapiens

<400> 4320

Met Arg Phe Val Val Ala Leu Val Leu Leu Asn Val Ala Ala Ala Gly
 1   5   10   15

Ala Val Pro Leu Leu Ala Thr Glu Ser Val Lys Gln Glu Glu Ala Gly
                20   25   30

Val Arg Pro Ser Ala Gly Asn Val Ser Thr His Pro Ser Leu Ser Gln
        35   40   45

Arg Pro Gly Gly Ser Thr Lys Ser His Pro Glu Pro Gln Thr Pro Lys
        50   55   60

Asp Ser Pro Ser Lys Ser Gly Ser Glu Ala Gln Thr Thr Lys Asp Val
65   70   75   80

Pro Asn Lys Ser Gly Ala Asp Gly Gln Thr Pro Lys Asp Gly Ser Ser
                85   90   95

Lys Ser Gly Ala Glu Asp Gln Thr Pro Lys Asp Val Pro Asn Lys Ser
                100   105   110

```
Gly Ala Glu Lys Gln Thr Pro Lys Asp Gly Ser Asn Lys Ser Gly Ala
        115             120             125
Glu Glu Gln Gly Pro Ile Asp Gly Pro Ser Lys Ser Gly Ala Glu Glu
        130             135             140
Gln Thr Ser Lys Asp Ser Pro Asn Lys Glu Glu Val Lys Ser Ser Glu
145             150             155             160
Pro Thr Glu Asp Val Glu Pro Lys Glu Ala Glu Asp Asp Asp Thr Gly
            165             170             175
Pro Glu Glu Gly Ser Pro Pro Lys Glu Glu Lys Glu Lys Met Ser Gly
            180             185             190
Ser Ala Ser Ser Glu Asn Arg Glu Gly Thr Leu Ser Asp Ser Thr Gly
        195             200             205
Ser Glu Lys Asp Asp Leu Tyr Pro Asn Gly Ser Gly Asn Gly Ser Ala
        210             215             220
Glu Ser Ser His Phe Phe Ala Tyr Leu Val Thr Ala Ala Ile Leu Val
225             230             235             240
Ala Val Leu Tyr Ile Ala His His Asn Lys Arg Lys Ile Ile Ala Phe
            245             250             255
Val Leu Glu Gly Lys Arg Ser Lys Val Thr Arg Arg Pro Lys Ala Ser
            260             265             270
Asp Tyr Gln Arg Leu Asp Gln Lys Ser
        275             280
```

```
<210> 4321
<211> 647
<212> PRT
<213> Homo sapiens


<400> 4321
Met Ala Ala Ile Leu Gly Asp Thr Ile Met Val Ala Lys Gly Leu Val
  1             5               10              15
Lys Leu Thr Gln Ala Ala Val Glu Thr His Leu Gln His Leu Gly Ile
            20              25              30
Gly Gly Glu Leu Ile Met Ala Ala Arg Ala Leu Gln Ser Thr Ala Val
        35              40              45
```

```
Glu Gln Ile Gly Met Phe Leu Gly Lys Val Gln Gly Gln Asp Lys His
        50                  55                  60
Glu Glu Tyr Phe Ala Glu Asn Phe Gly Gly Pro Glu Gly Glu Phe His
 65                  70                  75                  80
Phe Ser Val Pro His Ala Ala Gly Ala Ser Thr Asp Phe Ser Ser Ala
                85                  90                  95
Ser Ala Pro Asp Gln Ser Ala Pro Pro Ser Leu Gly His Ala His Ser
               100                 105                 110
Glu Gly Pro Ala Pro Ala Tyr Val Ala Ser Gly Pro Phe Arg Glu Ala
               115                 120                 125
Gly Phe Pro Gly Gln Ala Ser Ser Pro Leu Gly Arg Ala Asn Gly Arg
          130                 135                 140
Leu Phe Ala Asp Pro Arg Asp Ser Phe Ser Ala Met Gly Phe Gln Arg
145                 150                 155                 160
Arg Phe Phe His Gln Asp Gln Ser Pro Val Gly Gly Leu Thr Ala Glu
               165                 170                 175
Asp Ile Glu Lys Ala Arg Gln Ala Lys Ala Arg Pro Glu Asn Lys Gln
          180                 185                 190
His Lys Gln Thr Leu Ser Glu His Ala Arg Glu Arg Lys Val Pro Val
          195                 200                 205
Thr Arg Ile Gly Arg Leu Ala Asn Phe Gly Gly Leu Ala Val Gly Leu
          210                 215                 220
Gly Phe Gly Ala Leu Ala Glu Val Ala Lys Lys Ser Leu Arg Ser Glu
225                 230                 235                 240
Asp Pro Ser Gly Lys Lys Ala Val Leu Gly Ser Ser Pro Phe Leu Ser
               245                 250                 255
Glu Ala Asn Ala Glu Arg Ile Val Arg Thr Leu Cys Lys Val Arg Gly
          260                 265                 270
Ala Ala Leu Lys Leu Gly Gln Met Leu Ser Ile Gln Asp Asp Ala Phe
          275                 280                 285
Ile Asn Pro His Leu Ala Lys Ile Phe Glu Arg Val Arg Gln Ser Ala
          290                 295                 300
Asp Phe Met Pro Leu Lys Gln Met Met Lys Thr Leu Asn Asn Asp Leu
305                 310                 315                 320
Gly Pro Asn Trp Arg Asp Lys Leu Glu Tyr Phe Glu Glu Arg Pro Phe
               325                 330                 335
```

Ala Ala Ala Ser Ile Gly Gln Val His Leu Ala Arg Met Lys Gly Gly
        340   345   350

Arg Glu Val Ala Met Lys Ile Gln Tyr Pro Gly Val Ala Gln Ser Ile
        355   360   365

Asn Ser Asp Val Asn Asn Leu Met Ala Val Leu Asn Met Ser Asn Met
    370   375   380

Leu Pro Glu Gly Leu Phe Pro Glu His Leu Ile Asp Val Leu Arg Arg
385   390   395   400

Glu Leu Ala Leu Glu Cys Asp Tyr Gln Arg Glu Ala Ala Cys Ala Arg
                405   410   415

Lys Phe Arg Asp Leu Leu Lys Gly His Pro Phe Phe Tyr Val Pro Glu
            420   425   430

Ile Val Asp Glu Leu Cys Ser Pro His Val Leu Thr Thr Glu Leu Val
        435   440   445

Ser Gly Phe Pro Leu Asp Gln Ala Glu Gly Leu Ser Gln Glu Ile Arg
    450   455   460

Asn Glu Ile Cys Tyr Asn Ile Leu Val Leu Cys Leu Arg Glu Leu Phe
465   470   475   480

Glu Phe His Phe Met Gln Thr Asp Pro Asn Trp Ser Asn Phe Phe Tyr
            485   490   495

Asp Pro Gln Gln His Lys Val Ala Leu Leu Asp Phe Gly Ala Thr Arg

        500   505   510

Glu Tyr Asp Arg Ser Phe Thr Asp Leu Tyr Ile Gln Ile Ile Arg Ala
        515   520   525

Ala Ala Asp Arg Asp Arg Glu Thr Val Arg Ala Lys Ser Ile Glu Met
    530   535   540

Lys Phe Leu Thr Gly Tyr Glu Val Lys Val Met Glu Asp Ala His Leu
545   550   555   560

Asp Ala Ile Leu Ile Leu Gly Glu Ala Phe Ala Ser Asp Glu Pro Phe
            565   570   575

Asp Phe Gly Thr Gln Ser Thr Thr Glu Lys Ile His Asn Leu Ile Pro
            580   585   590

Val Met Leu Arg His Arg Leu Val Pro Pro Glu Glu Thr Tyr Ser
    595   600   605

Leu His Arg Lys Met Gly Gly Ser Phe Leu Ile Cys Ser Lys Leu Lys

<div style="text-align:center">610   615   620</div>

```
          610                 615                 620
Ala Arg Phe Pro Cys Lys Ala Met Phe Glu Glu Ala Tyr Ser Asn Tyr
625                 630                 635                 640
Cys Lys Arg Gln Ala Gln Gln
                  645
```

<210> 4322

<211> 419

<212> PRT

<213> Homo sapiens

<400> 4322

```
Met Ser Arg Gly Thr Arg Glu Ser Ala Cys Cys Met Leu Thr Ser Trp
  1                 5                  10                  15
Ala Ser Arg Gly Trp Pro Ala Ser Val Pro Leu Arg Ser Trp Cys Ser
                 20                  25                  30
Cys Ser Met Ser Ser Leu Ala Ser Ser Thr Arg Leu Pro Arg Lys Leu
             35                  40                  45
Arg Ala Ala Thr Gly Val Asp Ile Asn Met Arg Val Gly Val His Ser
             50                  55                  60
Gly Ser Val Leu Cys Gly Val Ile Gly Leu Gln Lys Trp Gln Tyr Asp
 65                  70                  75                  80
Val Trp Ser His Asp Val Thr Leu Ala Asn His Met Glu Ala Gly Gly
                 85                  90                  95
Val Pro Gly Arg Val His Ile Thr Gly Ala Thr Leu Ala Leu Leu Ala
                100                 105                 110
Gly Ala Tyr Ala Val Glu Asp Ala Gly Met Glu His Arg Asp Pro Tyr
             115                 120                 125
Leu Arg Glu Leu Gly Glu Pro Thr Tyr Leu Val Ile Asp Pro Arg Ala
             130                 135                 140
Glu Glu Glu Asp Glu Lys Gly Thr Ala Gly Gly Leu Leu Ser Ser Leu
145                 150                 155                 160
Glu Gly Leu Lys Met Arg Pro Ser Leu Leu Met Thr Arg Tyr Leu Glu
                165                 170                 175
Ser Trp Gly Ala Ala Lys Pro Phe Ala His Leu Ser His Gly Asp Ser
```

```
                180                    185                    190
Pro Val Ser Thr Ser Thr Pro Leu Pro Glu Lys Thr Leu Ala Ser Phe
        195                    200                    205
Ser Thr Gln Trp Ser Leu Asp Arg Ser Arg Thr Pro Arg Gly Leu Asp
        210                    215                    220
Asp Glu Leu Asp Thr Gly Asp Ala Lys Phe Phe Gln Val Ile Glu Gln
225                    230                    235                    240
Leu Asn Ser Gln Lys Gln Trp Lys Gln Ser Lys Asp Phe Asn Pro Leu
                245                    250                    255
Thr Leu Tyr Phe Arg Glu Lys Glu Met Glu Lys Glu Tyr Arg Leu Ser
                260                    265                    270
Ala Ile Pro Ala Phe Lys Tyr Tyr Glu Ala Cys Thr Phe Leu Val Phe
            275                    280                    285
Leu Ser Asn Phe Ile Ile Gln Met Leu Val Thr Asn Arg Pro Pro Ala
        290                    295                    300
Leu Ala Ile Thr Tyr Ser Ile Thr Phe Leu Leu Phe Leu Leu Ile Leu
305                    310                    315                    320
Phe Val Cys Phe Ser Glu Asp Leu Met Arg Cys Val Leu Lys Gly Pro
                325                    330                    335
Lys Met Leu His Trp Leu Pro Ala Leu Ser Gly Leu Val Ala Thr Arg
                340                    345                    350
Pro Gly Leu Arg Ile Ala Leu Gly Thr Ala Thr Ile Leu Leu Val Phe
            355                    360                    365
Ala Met Ala Ile Thr Ser Leu Phe Phe Phe Pro Thr Ser Ser Asp Cys
     370                    375                    380
Pro Phe Gln Ala Pro Asn Val Ser Ser Met Ile Ser Asn Leu Ser Trp
385                    390                    395                    400
Glu Leu Pro Gly Ser Leu Pro Leu Ile Ser Val Pro Val Ser Val Pro
                405                    410                    415
Thr Cys Pro
```

<213> Homo sapiens

<400> 4323

```
Met Ala His Val Ala Glu Lys Asp Gly Leu Asp Trp Ala Ser Gly Cys
1               5               10              15
Ile Pro Gly Leu Gln Thr Gly Ile Cys Leu Phe Gly Ser Gln Leu Cys
                20              25              30
Phe His Leu Ser Trp Leu Tyr Ser Trp Ala Ser Gln Cys Gly Pro Thr
            35              40              45
Ala Pro Val Ile Asp Lys Lys Ser Ser Pro Leu Leu Thr Glu Leu Leu
        50              55              60
Asp Leu Val Leu Ile Gly Pro Asp Glu Glu Gly Ile Gln Pro Gln Val
65              70              75              80
Ile Ile Val Ala Arg Lys Met Glu Tyr Thr Lys Trp Thr Gly Leu Ala
                85              90              95
Cys Thr His Arg Asp
            100
```

<210> 4324
<211> 224
<212> PRT
<213> Homo sapiens

<400> 4324

```
Met Val Cys Leu Val Leu Leu Asn His Pro Lys Glu Leu Asn Met Ala
1               5               10              15
Lys Gln Met Val Lys Ala Ser Arg Leu Phe Tyr Phe Gly Ser Ala Arg
                20              25              30
Ser Pro Leu Thr Cys Asp Leu Cys Cys Pro Ser Arg Trp Ser Gln Ala
            35              40              45
Ile Gln Pro Cys Pro Leu Pro Leu Cys Pro Asp Ala Ser Gly Ala Arg
        50              55              60
Leu Phe Arg Leu Ala Leu Thr Ser Gly Arg Gln Ser Thr Leu Arg Asp
65              70              75              80
Val Ala Asn Thr Thr Pro Pro Val Leu Ser Val Gly Arg Ala Glu Ala
```

```
                    85                    90                    95
Ala Trp Glu Ala Arg Gly Asp Arg Lys Arg Ala Leu Ser Ser Ser Glu
                100           .           105               110
Lys Arg Ile Cys His Gln Ile Glu Phe Arg Pro Leu Ser Leu Phe Gly
            115                   120               125
Arg Met Val Gln Ile Gln Ile Lys Val Val Thr Gln Pro Glu Met Ser
        130                   135               140 .
Gly Lys Ala Phe Cys Arg Glu Asn Val Pro Pro Pro Ala Ile Cys Ser
145                   150                   155                   160
Gln Val Cys Ala Thr Arg Gln Pro Ser Arg Asn Ile Val Trp Ile Leu
                165                   170                   175
Lys Met Cys Leu Phe Leu Phe Leu Asn His Phe Ile Thr Tyr Phe Leu
            180                   185               190
Ile Tyr Phe Val Met Ser Cys Phe Glu Val Leu Leu Leu Ser Leu Leu
            195                   200               205
Ser Phe Pro Leu Phe Leu Ser Leu Ile Tyr Phe Val Lys Val Val His
        210                   215               220
```

<210> 4325

<211> 1192

<212> PRT

<213> Homo sapiens

<400> 4325

```
Met Leu Asp Gly Ala Arg Leu Glu Gly Asp Leu Ser Leu Ala His Glu
    1               5                   10                  15
Asp Val Ala Gly Lys Asp Ser Lys Phe Gln Gly Pro Lys Leu Ser Thr
                20                  25                  30
Ser Gly Phe Glu Trp Ser Ser Lys Lys Val Ser Met Ser Ser Ser Glu
            35                  40                  45
Ile Glu Gly Asn Val Thr Phe His Glu Lys Thr Ser Ala Phe Pro Ile
        50                  55                  60
Val Glu Ser Val Val His Glu Gly Asp Leu His Asp Pro Ser Arg Asp
65                  70                  75                  80
Gly Asn Leu Gly Leu Ala Val Gly Glu Val Gly Met Asp Ser Lys Phe
```

```
                    85                      90                      95
Lys Lys Leu His Phe Lys Val Pro Lys Val Ser Phe Ser Ser Thr Lys
                100                     105                     110
Thr Pro Lys Asp Ser Leu Val Pro Gly Ala Lys Ser Ser Ile Gly Leu
                115                     120                     125
Ser Thr Ile Pro Leu Ser Ser Ser Glu Cys Ser Ser Phe Glu Leu Gln
            130                     135                     140
Gln Val Ser Ala Cys Ser Glu Pro Ser Met Gln Met Pro Lys Val Gly
145                     150                     155                     160
Phe Ala Gly Phe Pro Ser Ser Arg Leu Asp Leu Thr Gly Pro His Phe
                    165                     170                     175
Glu Ser Ser Ile Leu Ser Pro Cys Glu Asp Val Thr Leu Thr Lys Tyr
                180                     185                     190
Gln Val Thr Val Pro Arg Ala Ala Leu Ala Pro Glu Leu Ala Leu Glu
                195                     200                     205
Ile Pro Ser Gly Ser Gln Ala Asp Ile Pro Leu Pro Lys Thr Glu Cys
            210                     215                     220
Ser Thr Asp Leu Gln Pro Pro Glu Gly Val Pro Thr Ser Gln Ala Glu
225                     230                     235                     240
Ser His Ser Gly Pro Leu Asn Ser Met Ile Pro Val Ser Leu Gly Gln
                    245                     250                     255
Val Ser Phe Pro Lys Phe Tyr Lys Pro Lys Phe Val Phe Ser Val Pro
                260                     265                     270
Gln Met Ala Val Pro Glu Gly Asp Leu His Ala Ala Val Gly Ala Pro
                275                     280                     285
Val Met Ser Pro Leu Ser Pro Gly Glu Arg Val Gln Cys Pro Leu Pro
            290                     295                     300
Ser Thr Gln Leu Pro Ser Pro Gly Thr Cys Val Ser Gln Gly Pro Glu
305                     310                     315                     320
Glu Leu Val Ala Ser Leu Gln Thr Ser Val Val Ala Pro Gly Glu Ala
                    325                     330                     335
Pro Ser Glu Asp Ala Asp His Glu Gly Lys Gly Ser Pro Leu Lys Met
                340                     345                     350
Pro Lys Ile Lys Leu Pro Ser Phe Arg Trp Ser Pro Lys Lys Glu Thr
                355                     360                     365
Gly Pro Lys Val Asp Pro Glu Cys Ser Val Glu Asp Ser Lys Leu Ser
```

```
                370                   375                   380
Leu Val Leu Asp Lys Asp Glu Val Ala Pro Gln Ser Ala Ile His Met
385                 390                   395                   400
·Asp Leu Pro Pro Glu Arg Asp Gly Glu Lys Gly Arg Ser Thr Lys Pro
                    405                   410                   415
Gly Phe Ala Met Pro Lys Leu Ala Leu Pro Lys Met Lys Ala Ser Lys
                420                   425                   430
Ser Gly Val Ser Leu Pro Gln Arg Gly Val Asp Pro Ser Leu Ser Ser
                435                   440                   445
Ala Thr Ala Gly Gly Ser Phe Gln Asp Thr Glu Lys Ala Ser Ser Asp
                450                   455                   460
Gly Gly Arg Gly Gly Leu Gly Ala Thr Ala Ser Ala Thr Gly Ser Glu
465                 470                   475                   480
Gly Val Asn Leu His Arg Pro Gln Val His Ile Pro Ser Leu Gly Phe
                485                   490                   495
Ala Lys Pro Asp Leu Arg Ser Ser Lys Ala Lys Val Glu Val Ser Gln
                500                   505                   510
Pro Glu Ala Asp Leu Pro Leu Pro Lys His Asp Leu Ser Thr Glu Gly
                515                   520                   525
Asp Ser Arg Gly Cys Gly Leu Glu Asp Val Pro Val Ser Gln Pro Cys
                530                   535                   540
Gly Glu Gly Ile Ala Pro Thr Pro Glu Asp Pro Leu Gln Pro Ser Cys
545                 550                   555                   560
Arg Lys Pro Asp Ala Glu Val Leu Thr Val Glu Ser Pro Glu Glu Glu
                565                   570                   575
Ala Met Thr Lys Asp Ser Gln Glu Ser Trp Phe Lys Met Pro Lys Phe
                580                   585                   590
Arg Met Pro Ser Leu Arg Arg Ser Phe Arg Asp Arg Gly Gly Ala Gly
                595                   600                   605
Lys Leu Glu Val Ala Gln Thr Gln Ala Pro Ala Ala Thr Gly Gly Glu
                610                   615                 ·620
Ala Ala Ala Lys Val Lys Glu Phe Leu Val Ser Gly Ser Asn Val Glu
625                 630                   635                   640
Ala Ala Met Ser Leu Gln Leu Pro Glu Ala Asp Ala Glu Val Thr Ala
                645                   650                   655
Ser Glu Ser Lys Ser Ser Thr Asp Ile Leu Arg Cys Asp Leu Asp Ser
```

```
                660                    665                    670
Thr Gly Leu Lys Leu His Leu Ser Thr Ala Gly Met Thr Gly Asp Glu
            675                    680                    685
Leu Ser Thr Ser Glu Val Arg Ile His Pro Ser Lys Gly Pro Leu Pro
        690                    695                    700
Phe Gln Met Pro Gly Met Arg Leu Pro Glu Thr Gln Val Leu Pro Gly
705                    710                    715                    720
Glu Ile Asp Glu Thr Pro Leu Ser Lys Pro Gly His Asp Leu Ala Ser
                725                    730                    735
Met Glu Asp Lys Thr Glu Lys Trp Ser Ser Gln Pro Glu Gly Pro Leu
            740                    745                    750
Lys Leu Lys Ala Ser Ser Thr Asp Met Pro Ser Gln Ile Ser Val Val
            755                    760                    765
Asn Val Asp Gln Leu Trp Glu Asp Ser Val Leu Thr Val Lys Phe Pro
        770                    775                    780
Lys Leu Met Val Pro Arg Phe Ser Phe Ala Ala Pro Ser Ser Glu Asp
785                    790                    795                    800
Asp Val Phe Ile Pro Thr Val Arg Glu Val Gln Cys Pro Glu Ala Asn
                805                    810                    815
Ile Asp Thr Ala Leu Cys Lys Glu Ser Pro Gly Leu Trp Gly Ala Ser
                820                    825                    830
Ile Leu Lys Ala Gly Ala Gly Val Pro Gly Glu Gln Pro Val Asp Leu
            835                    840                    845
Asn Leu Pro Leu Glu Ala Pro Pro Ile Ser Lys Val Arg Val His Ile
        850                    855                    860
Gln Gly Ala Gln Val Glu Ser Gln Glu Val Thr Ile His Ser Ile Val
865                    870                    875                    880
Thr Pro Glu Phe Val Asp Leu Ser Val Pro Arg Thr Phe Ser Thr Gln
                885                    890                    895
Ile Val Arg Glu Ser Glu Ile Pro Thr Ser Glu Ile Gln Thr Pro Ser
            900                    905                    910
Tyr Gly Phe Ser Leu Leu Lys Val Lys Ile Pro Glu Pro His Thr Gln
            915                    920                    925
Ala Arg Val Tyr Thr Thr Met Thr Gln His Ser Arg Thr Gln Glu Gly
        930                    935                    940
Thr Glu Glu Ala Pro Ile Gln Ala Thr Pro Gly Val Asp Ser Ile Ser
```

945   950   955   960

Gly Asp Leu Gln Pro Asp Thr Gly Glu Pro Phe Glu Met Ile Ser Ser
                965   970   975

Ser Val Asn Val Leu Gly Gln Gln Thr Leu Thr Phe Glu Val Pro Ser
                980   985   990

Gly His Gln Leu Ala Asp Ser Cys Ser Asp Glu Glu Pro Ala Glu Ile
          995   1000   1005

Leu Glu Phe Pro Pro Asp Asp Ser Gln Glu Ala Thr Thr Pro Leu Ala
     1010   1015   1020

Asp Glu Gly Arg Ala Pro Lys Asp Lys Pro Glu Ser Lys Lys Ser Gly
1025   1030   1035   1040

Leu Leu Trp Phe Trp Leu Pro Asn Ile Gly Phe Ser Ser Ser Val Asp
                1045   1050   1055

Glu Thr Gly Val Asp Ser Lys Asn Asp Val Gln Arg Ser Ala Pro Ile
                1060   1065   1070

Gln Thr Gln Pro Glu Ala Arg Pro Glu Ala Glu Leu Pro Lys Lys Gln
          1075   1080   1085

Glu Lys Ala Gly Trp Phe Arg Phe Pro Lys Leu Gly Phe Ser Ser Ser
     1090   1095   1100

Pro Thr Lys Lys Ser Lys Ser Thr Glu Asp Gly Ala Glu Leu Glu Glu
1105   1110   1115   1120

Gln Lys Leu Gln Glu Glu Thr Ile Thr Phe Phe Asp Ala Arg Glu Ser
                1125   1130   1135

Phe Ser Pro Glu Glu Lys Glu Glu Gly Glu Leu Ile Gly Pro Val Gly
          1140   1145   1150

Thr Gly Leu Asp Ser Arg Val Met Val Thr Ser Ala Ala Arg Thr Glu
          1155   1160   1165

Leu Ile Leu Pro Glu Gln Asp Arg Lys Ala Asp Asp Glu Ser Lys Gly
     1170   1175   1180

Ser Gly Leu Gly Pro Asn Glu Gly
1185   1190

<210> 4326
<211> 503
<212> PRT

<213> Homo sapiens

<400> 4326

Met Ala Gly Leu Trp Leu Gly Leu Val Trp Gln Lys Leu Leu Leu Trp
1   5   10   15

Gly Ala Ala Ser Ala Leu Ser Leu Ala Gly Ala Ser Leu Val Leu Ser
                20   25   30

Leu Leu Gln Arg Val Ala Ser Tyr Ala Leu Leu Met Lys Pro Asp Gly
            35   40   45

Arg Glu Phe Phe Gln Gln Ile Ile Glu Tyr Thr Glu Glu Tyr Arg His
        50   55   60

Met Pro Leu Leu Lys Leu Trp Val Gly Pro Val Pro Met Val Ala Leu
65   70   75   80

Tyr Asn Ala Glu Asn Val Glu Val Ile Leu Thr Ser Ser Lys Gln Ile
                85   90   95

Asp Lys Ser Ser Met Tyr Lys Phe Leu Glu Pro Trp Leu Gly Leu Gly
                100   105   110

Leu Leu Thr Ser Thr Gly Asn Lys Trp Arg Ser Arg Arg Lys Met Leu
            115   120   125

Thr Pro Thr Phe His Phe Thr Ile Leu Glu Asp Phe Leu Asp Ile Met
        130   135   140

Asn Glu Gln Ala Asn Ile Leu Val Lys Lys Leu Glu Lys His Ile Asn
145   150   155   160

Gln Glu Ala Phe Asn Cys Phe Phe Tyr Ile Thr Leu Cys Ala Leu Asp
                165   170   175

Ile Ile Cys Glu Thr Ala Met Gly Lys Asn Ile Gly Ala Gln Ser Asn
                180   185   190

Asp Asp Ser Glu Tyr Val Arg Ala Val Tyr Arg Met Ser Glu Met Ile
            195   200   205

Phe Arg Arg Ile Lys Met Pro Trp Leu Trp Leu Asp Leu Trp Tyr Leu
        210   215   220

Met Phe Lys Glu Gly Trp Glu His Lys Lys Ser Leu Lys Ile Leu His
225   230   235   240

Thr Phe Thr Asn Ser Val Ile Ala Glu Arg Ala Asn Glu Met Asn Ala
                245   250   255

Asn Glu Asp Cys Arg Gly Asp Gly Arg Gly Ser Ala Pro Ser Lys Asn
           260   265   270

Lys Arg Arg Ala Phe Leu Asp Leu Leu Leu Ser Val Thr Asp Asp Glu
           275   280   285

Gly Asn Arg Leu Ser His Glu Asp Ile Arg Glu Glu Val Asp Thr Phe
      290   295   300

Met Phe Glu Gly His Asp Thr Thr Ala Ala Ala Ile Asn Trp Ser Leu
305   310   315   320

Tyr Leu Leu Gly Ser Asn Pro Glu Val Gln Lys Lys Val Asp His Glu
              325   330   335

Leu Asp Asp Val Phe Gly Lys Ser Asp Arg Pro Ala Thr Val Glu Asp
           340   345   350

Leu Lys Lys Leu Arg Tyr Leu Glu Cys Val Ile Lys Glu Thr Leu Arg
           355   360   365

Leu Phe Pro Ser Val Pro Leu Phe Ala Arg Ser Val Ser Glu Asp Cys
          370   375   380

Glu Val Ala Gly Tyr Arg Val Leu Lys Gly Thr Glu Ala Val Ile Ile
385   390   395   400

Pro Tyr Ala Leu His Arg Asp Pro Arg Tyr Phe Pro Asn Pro Glu Glu
           405   410   415

Phe Gln Pro Glu Arg Phe Phe Pro Glu Asn Ala Gln Gly Arg His Pro
          420   425   430

Tyr Ala Tyr Val Pro Phe Ser Ala Gly Pro Arg Asn Cys Ile Gly Gln
          435   440   445

Lys Phe Ala Val Met Glu Glu Lys Thr Ile Leu Ser Cys Ile Leu Arg
          450   455   460

His Phe Trp Ile Glu Ser Asn Gln Lys Arg Glu Glu Leu Gly Leu Glu
465   470   475   480

Gly Gln Leu Ile Leu Arg Pro Ser Asn Gly Ile Trp Ile Lys Leu Lys
          485   490   495

Arg Arg Asn Ala Asp Glu Arg
          500

<210> 4327
<211> 491

<212> PRT

<213> Homo sapiens

<400> 4327

Met Ser Arg Val Ala Lys Tyr Arg Arg Gln Val Ser Glu Asp Pro Asp
1   5   10   15

Ile Asp Ser Leu Leu Glu Thr Leu Ser Pro Glu Glu Met Glu Glu Leu
                20   25   30

Glu Lys Glu Leu Asp Val Val Asp Pro Asp Gly Ser Val Pro Val Gly
            35   40   45

Leu Arg Gln Arg Asn Gln Thr Glu Lys Gln Ser Thr Gly Val Tyr Asn
        50   55   60

Arg Glu Ala Met Leu Asn Phe Cys Glu Lys Glu Thr Lys Lys Glu Glu
65   70   75   80

Glu Lys Lys Gly Ser Asp Arg Asn Thr Gly Leu Ser Arg Asp Lys Asp
                85   90   95

Lys Lys Arg Glu Glu Met Lys Glu Val Ala Lys Lys Glu Asp Asp Glu
                100   105   110

Lys Val Lys Gly Glu Arg Arg Asn Thr Asp Thr Arg Lys Glu Gly Glu
            115   120   125

Lys Met Lys Arg Ala Gly Gly Asn Thr Asp Met Lys Lys Glu Asp Glu
        130   135   140

Lys Val Lys Arg Gly Thr Gly Asn Thr Asp Thr Lys Lys Asp Asp Glu
145   150   155   160

Lys Val Lys Lys Asn Glu Pro Leu His Glu Lys Glu Ala Lys Asp Asp
                165   170   175

Ser Lys Thr Lys Thr Pro Glu Arg Gln Met Pro Ser Gly Pro Thr Lys
                180   185   190

Pro Ser Glu Gly Pro Ala Lys Val Glu Glu Glu Ala Ala Pro Ser Ile
            195   200   205

Phe Asp Glu Pro Leu Glu Arg Val Lys Asn Asn Asp Pro Glu Met Thr
        210   215   220

Glu Val Asn Val Asn Asn Ser Asp Cys Ile Thr Asn Glu Ile Leu Val
225   230   235   240

Arg Phe Thr Glu Ala Leu Glu Phe Asn Thr Val Val Lys Leu Phe Ala
                245   250   255

Leu Ala Asn Thr Arg Ala Asp Asp His Val Ala Phe Ala Ile Ala Ile
            260   265   270

Met Leu Lys Ala Asn Lys Thr Ile Thr Ser Leu Asn Leu Asp Ser Asn
            275   280   285

His Ile Thr Gly Lys Gly Ile Leu Ala Ile Phe Arg Ala Leu Leu Gln
        290   295   300

Asn Asn Thr Leu Thr Glu Leu Arg Phe His Asn Gln Arg His Ile Cys
305   310   315   320

Gly Gly Lys Thr Glu Met Glu Ile Ala Lys Leu Leu Lys Glu Asn Thr
            325   330   335

Thr Leu Leu Lys Leu Gly Tyr His Phe Glu Leu Ala Gly Pro Arg Met
            340   345   350

Thr Val Thr Asn Leu Leu Ser Arg Asn Met Asp Lys Gln Arg Gln Lys
            355   360   365

Arg Leu Gln Glu Gln Arg Gln Ala Gln Glu Ala Lys Gly Glu Lys Lys
        370   375   380

Asp Leu Leu Glu Val Pro Lys Ala Gly Ala Val Ala Lys Gly Ser Pro
385   390   395   400

Lys Pro Ser Pro Gln Pro Ser Pro Lys Pro Ser Pro Lys Asn Ser Pro
            405   410   415

Lys Lys Gly Gly Ala Pro Ala Ala Pro Pro Pro Pro Pro Pro Leu
            420   425   430

Ala Pro Pro Leu Ile Met Glu Asn Leu Lys Asn Ser Leu Ser Pro Ala
            435   440   445

Thr Gln Arg Lys Met Gly Asp Lys Val Leu Pro Ala Gln Glu Lys Asn
            450   455   460

Ser Arg Asp Gln Leu Leu Ala Ala Ile Arg Ser Ser Asn Leu Lys Gln
465   470   475   480

Leu Lys Lys Val Glu Val Pro Lys Leu Leu Gln
            485   490

<210> 4328

<211> 116

<212> PRT

<213> Homo sapiens

<400> 4328

Met Arg Leu Asn Ile Leu Pro Arg Arg Arg Arg Arg Gly Arg Pro Arg
1   5   10   15

Pro Gly Pro Gly Asp Arg Gly Ala Asp Pro Gly Thr Glu Pro Gly Phe
                20   25   30

Val Arg Glu Ala Asp Ala Pro Arg Ala Pro Pro Pro Lys His Ser His
            35   40   45

Pro Met Leu Arg Arg Ala Ser Gly Ser Pro Trp Ala Pro Arg Gly Glu
        50   .55   60

Pro Gly Ala Pro Gly Gly Ser Ser Gly Glu Leu Pro Ala Gly Ala Gly
65   70   75   80

Arg Cys Trp Trp Glu Ala Arg Cys Thr Trp Arg Pro Gly Met Ser Gly
                85   90   95

Arg Pro Arg Ser Arg Cys Ile Arg Pro Leu Pro Ala Arg Pro Asp Val
                100   105   110

Pro Ala Gly Ser
        115

<210> 4329
<211> 257
<212> PRT
<213> Homo sapiens

<400> 4329

Met Ala Pro Pro Ala Pro Gly Pro Ala Ser Gly Gly Ser Gly Glu Val
1   5   10   15

Asp Glu Leu Phe Asp Val Lys Asn Ala Phe Tyr Ile Gly Ser Tyr Gln
                20   25   30

Gln Cys Ile Asn Glu Ala Gln Arg Val Lys Leu Ser Ser Pro Glu Arg
        35   40   45

Asp Val Glu Arg Asp Val Phe Leu Tyr Arg Ala Tyr Leu Ala Gln Arg
        50   55   60

Lys Phe Gly Val Val Leu Asp Glu Ile Lys Pro Ser Ser Ala Pro Glu
65   70   75   80

Leu Gln Ala Val Arg Met Phe Ala Asp Tyr Leu Ala His Glu Ser Arg
            85   90   95

Ser Thr Ala Met Thr Val Gln Ile Leu Leu Lys Leu Asp Arg Leu Asp
          100   105   110

Leu Ala Arg Lys Glu Leu Lys Arg Met Gln Asp Leu Asp Glu Asp Ala
        115   120   125

Thr Leu Thr Gln Leu Ala Thr Ala Trp Val Ser Leu Ala Thr Gly Gly
       130   135   140

Glu Lys Leu Gln Asp Ala Tyr Tyr Ile Phe Gln Glu Met Ala Asp Lys
145   150   155   160

Cys Ser Pro Thr Leu Leu Leu Leu Asn Gly Gln Ala Ala Cys His Met
          165   170   175

Ala Gln Gly Arg Trp Glu Ala Ala Glu Gly Leu Leu Gln Glu Ala Leu
          180   185   190

Asp Lys Asp Ser Gly Tyr Pro Glu Thr Leu Val Asn Leu Ile Val Leu
          195   200   205

Ser Gln His Leu Gly Lys Pro Pro Glu Val Thr Asn Arg Tyr Leu Ser
          210   215   220

Gln Leu Lys Asp Ala His Arg Ser His Pro Phe Ile Lys Glu Tyr Gln
225   230   235   240

Ala Lys Glu Asn Asp Phe Asp Arg Leu Val Leu Gln Tyr Ala Pro Ser
          245   250   255

Ala

<210> 4330

<211> 119

<212> PRT

<213> Homo sapiens

<400> 4330

Met Asn Asn Ala Ala Ile Ile Asn Ile His Thr Ser Phe Leu Trp Thr
  1   5   10   15

Trp Phe His Phe Leu Gly Ile Cys Pro Ala Val Glu Phe Leu Gly His
          20   25   30

Leu Leu Thr Met Ile Ser Leu Leu Glu Lys Leu Pro Asp Phe Leu Leu
        35   40   45
Ile Phe Phe Phe Phe Leu Leu Leu Cys Ser Val Lys Lys Pro Phe Asn
        50   55   60
Ala Tyr Glu Leu Lys Pro Cys Lys Glu Ser Asp His Leu Gly Leu Asp
65   70   75   80
Arg Lys Leu Leu Asp Phe Lys Cys Ile Thr Leu Arg Ile Phe Cys Asp
                85   90   95
Ser Leu Ala Ser Pro Leu Ser Ser Leu Phe Phe Leu Arg Ile His Glu
                100   105   110
Leu Ala Pro Cys Leu His Ile
                115

<210> 4331

<211> 934

<212> PRT

<213> Homo sapiens

<400> 4331

Met Leu Thr Leu Glu Glu Phe Arg Glu Leu Arg Glu Gln Pro Ser Asp
1   5   10   15
Pro Gln Ala Glu Gln Glu Leu Ile Asn Ser Ile Glu Gln Val Tyr Phe
                20   25   30
Ser Val Asp Ser Phe Asp Ile Val Lys Tyr Glu Leu Glu Lys Leu Pro
        35   40   45
Pro Val Leu Asn Leu Gln Glu Leu Glu Ala Tyr Arg Asp Lys Leu Lys
    50   55   60
Gln His Gln Ala Ala Val Ser Lys Lys Val Ala Asp Leu Ile Leu Glu
65   70   75   80
Lys Gln Pro Ala Tyr Val Lys Glu Leu Glu Arg Val Thr Ser Leu Gln
                85   90   95
Thr Gly Leu Gln Leu Ala Ala Val Ile Cys Thr Asn Gly Arg Arg His
                100   105   110
Leu Asn Ile Ala Lys Glu Gly Phe Thr Gln Ala Ser Leu Gly Leu Leu
        115   120   125

Ala Asn Gln Arg Lys Arg Gln Leu Leu Ile Gly Leu Leu Lys Ser Leu
   130   135   140

Arg Thr Ile Lys Thr Leu Gln Arg Thr Asp Val Arg Leu Ser Glu Met
145   150   155   160

Leu Glu Glu Glu Asp Tyr Pro Gly Ala Ile Gln Leu Cys Leu Glu Cys
         165   170   175

Gln Lys Ala Ala Ser Thr Phe Lys His Tyr Ser Cys Ile Ser Glu Leu
         180   185   190

Asn Ser Lys Leu Gln Asp Thr Leu Glu Gln Ile Glu Glu Gln Leu Asp
         195   200   205

Val Ala Leu Ser Lys Ile Cys Lys Asn Phe Asp Ile Asn His Tyr Thr
         210   215   220

Lys Val Gln Gln Ala Tyr Arg Leu Leu Gly Lys Thr Gln Thr Ala Met
225   230   235   240

Asp Gln Leu His Met His Phe Thr Gln Ala Ile His Asn Thr Val Phe
         245   250   255

Gln Val Val Leu Gly Tyr Val Glu Leu Cys Ala Gly Asn Thr Asp Thr
         260   265   270

Lys Phe Gln Lys Leu Gln Tyr Lys Asp Leu Cys Thr His Val Thr Pro
         275   280   285

Asp Ser Tyr Ile Pro Cys Leu Ala Asp Leu Cys Lys Ala Leu Trp Glu
         290   295   300

Val Met Leu Ser Tyr Tyr Arg Thr Met Glu Trp His Glu Lys His Asp
305   310   315   320

Asn Glu Asp Thr Ala Ser Ala Ser Glu Gly Ser Asn Met Ile Gly Thr
         325   330   335

Glu Glu Thr Asn Phe Asp Arg Gly Tyr Ile Lys Lys Lys Leu Glu His
         340   345   350

Gly Leu Thr Arg Ile Trp Gln Asp Val Gln Leu Lys Val Lys Thr Tyr
         355   360   365

Leu Leu Gly Thr Asp Leu Ser Ile Phe Lys Tyr Asp Asp Phe Ile Phe
         370   375   380

Val Leu Asp Ile Ile Ser Arg Leu Met Gln Val Gly Glu Glu Phe Cys
385   390   395   400

Gly Ser Lys Ser Glu Val Leu Gln Glu Ser Ile Arg Lys Gln Ser Val
         405   410   415

Asn Tyr Phe Lys Asn Tyr His Arg Thr Arg Leu Asp Glu Leu Arg Met
          420   425   430

Phe Leu Glu Asn Glu Thr Trp Glu Leu Cys Pro Val Lys Ser Asn Phe
          435   440   445

Ser Ile Leu Gln Leu His Glu Phe Lys Phe Met Glu Gln Ser Arg Ser
          450   455   460

Pro Ser Val Ser Pro Ser Lys Gln Pro Val Ser Thr Ser Ser Lys Thr
465   470   475   480

Val Thr Leu Phe Glu Gln Tyr Cys Ser Gly Gly Asn Pro Phe Glu Ile
              485   490   495

Gln Ala Asn His Lys Asp Glu Glu Thr Glu Asp Val Leu Ala Ser Asn
          500   505   510

Gly Tyr Glu Ser Asp Glu Gln Glu Lys Ser Ala Tyr Gln Glu Tyr Asp
          515   520   525

Ser Asp Ser Asp Val Pro Glu Glu Leu Lys Arg Asp Tyr Val Asp Glu
          530   535   540

Gln Thr Gly Asp Gly Pro Val Lys Ser Val Ser Arg Glu Thr Leu Lys
545   550   555   560

Ser Arg Lys Lys Ser Asp Tyr Ser Leu Asn Lys Val Asn Ala Pro Ile
              565   570   575

Leu Thr Asn Thr Thr Leu Asn Val Ile Arg Leu Val Gly Lys Tyr Met
              580   585   590

Gln Met Met Asn Ile Leu Lys Pro Ile Ala Phe Asp Val Ile His Phe
          595   600   605

Met Ser Gln Leu Phe Asp Tyr Tyr Leu Tyr Ala Ile Tyr Thr Phe Phe
          610   615   620

Gly Arg Asn Asp Ser Leu Glu Ser Thr Gly Leu Gly Leu Ser Ser Ser
625   630   635   640

Arg Leu Arg Thr Thr Leu Asn Arg Ile Gln Glu Ser Leu Ile Asp Leu
              645   650   655

Glu Val Ser Ala Asp Pro Thr Ala Thr Leu Thr Ala Ala Glu Glu Arg
          660   665   670

Lys Glu Lys Val Pro Ser Pro His Leu Ser His Leu Val Val Leu Thr
          675   680   685

Ser Gly Asp Thr Leu Tyr Gly Leu Ala Glu Arg Val Val Ala Thr Glu
          690   695   700

Ser Leu Val Phe Leu Ala Glu Gln Phe Glu Phe Leu Gln Pro His Leu
705   710   715   720

Asp Ala Val Met Pro Ala Val Lys Lys Pro Phe Leu Gln Gln Phe Tyr
                725   730   735

Ser Gln Thr Val Ser Thr Ala Ser Glu Leu Arg Lys Pro Ile Tyr Trp
                740   745   750

Ile Val Ala Gly Lys Ala Leu Asp Tyr Glu Gln Met Leu Leu Leu Met
            755   760   765

Ala Asn Val Lys Trp Asp Val Lys Glu Ile Met Ser Gln His Asn Ile
        770   775   780

Tyr Val Asp Ala Leu Leu Lys Glu Phe Glu Gln Phe Asn Arg Arg Leu
785   790   795   800

Asn Glu Val Ser Lys Arg Val Arg Ile Pro Leu Pro Val Ser Asn Ile
                805   810   815

Leu Trp Glu His Cys Ile Arg Leu Ala Asn Arg Thr Ile Val Glu Gly
            820   825   830

Tyr Ala Asn Val Lys Lys Cys Ser Asn Glu Gly Arg Ala Leu Met Gln
            835   840   845

Leu Asp Phe Gln Gln Phe Leu Met Lys Leu Glu Lys Leu Thr Asp Ile
        850   855   860

Arg Pro Ile Pro Asp Lys Glu Phe Val Glu Thr Tyr Ile Lys Ala Tyr
865   870   875   880

Tyr Leu Thr Glu Asn Asp Met Glu Arg Trp Ile Lys Glu His Arg Glu
                885   890   895

Tyr Ser Thr Lys Gln Leu Thr Asn Leu Val Asn Val Cys Leu Gly Ser
            900   905   910

His Ile Asn Lys Lys Ala Arg Gln Lys Leu Leu Ala Ala Ile Asp Asp
            915   920   925

Ile Asp Arg Pro Lys Arg
        930

<210> 4332

<211> 107

<212> PRT

<213> Homo sapiens

<400> 4332

Met Glu Ala Val Arg Thr Leu Gly Ser Ser Val Pro Leu Leu Ser Val
1   5   10   15

Gly Pro Leu Arg Asn Pro Glu Phe Leu Val Gly Leu Leu Leu Leu Ser
            20   25   30

His Ile Pro Pro Tyr Pro Gly Met Cys Arg Phe Leu Leu Asp Leu Ser
            35   40   45

Thr Gly Pro Cys Val Gln Ser Gln Phe Ile Leu Val Asp Pro His Phe
         50   55   60

His Pro Arg Ile His Phe His His Ser Gln Ser Leu Ser Ser Ile Met
65   70   75   80

Arg Arg Ser Gly Met Gln Ala Phe Cys Val Phe Ile Pro Ala Thr Ala
                85   90   95

Leu Thr Leu Met Glu Arg Ala Gly Trp Gly Gly
            100   105

<210> 4333
<211> 103
<212> PRT
<213> Homo sapiens

<400> 4333

Met Arg Leu Ala Asn Phe Ser Tyr Phe Trp Ile Glu Thr Gly Phe His
1   5   10   15

Arg Val Ala Gln Ala Gly Leu Glu Leu Leu Gly Ser Ser Asp Pro Pro
            20   25   30

Thr Leu Ala Ser Gln Arg Val Gly Ile Thr Gly Val Ser His Cys Ser
            35   40   45

Gln Leu Leu Gly Arg Leu Gly His Glu Asn Cys Phe Asn Pro Glu Gly
         50   55   60

Gly Val Cys Ser Glu Pro Arg Ser Cys His Cys Thr Pro Ala Trp Ala
65   70   75   80

Thr Glu Gly Asp Ser Val Ser Lys Lys Lys Lys Val Lys Glu Gly
                85   90   95

Phe Pro Glu Trp Pro Leu Asp
         100

<210> 4334
<211> 103
<212> PRT
<213> Homo sapiens

<400> 4334
Met Val Val Val Pro Ile Met Glu Asn Leu Leu Lys Ile Asn Cys Asn
1   5   10   15
Gly Leu Arg Thr Pro Pro Pro His Val Arg Ala Tyr Glu Gly Ile Phe
        20   25   30
Phe Leu Arg Gln Lys Lys Glu His Cys Arg Arg Pro Ser Asp Phe Phe
       35   40   45
Phe Pro Leu Phe Leu Phe Gln Arg Ala His Leu Leu Asp Asn Thr Glu
    50   55   60
Arg Leu Glu Arg Ser Ser Arg Arg Leu Glu Ala Gly Tyr Gln Ile Ala
65   70   75   80
Val Glu Thr Gly Lys Asn Ser Glu Ser Glu Gln Ile Val Leu Leu Met
        85   90   95
His Ser Ser Leu His Asn Thr
         100

<210> 4335
<211> 115
<212> PRT
<213> Homo sapiens

<400> 4335
Met Glu Glu Gly Asn Thr Ser Thr Val Thr Gln Gln Val Arg Gly Arg
1   5   10   15
Thr Arg Thr Lys Pro Arg Ser Leu His Leu Ser Pro Gly Leu Leu Val
        20   25   30

```
Thr Phe Leu Gln Glu Gly Leu Ser Lys Ser Ala Gly Ala Gln Arg Gln
        35                  40                  45
Gly Pro Thr Tyr Pro Cys Arg Asp Thr Glu Arg Thr Lys Thr Lys Pro
        50                  55                  60
Gln Gly Gly Gln Gln Pro Gln Thr Ser His Gly Leu Gly Leu Phe Ser
65                  70                  75                  80
Ile Tyr Leu Gly Arg Phe Ile Lys Ser Thr Phe Phe Arg Glu Leu Arg
                85                  90                  95
Lys Glu Lys Lys Tyr Ala Pro Phe Leu Ser Leu Gly Asp Ser Tyr Ser
                100                 105                 110
Arg Gly Thr
        115
```

<210> 4336

<211> 257

<212> PRT

<213> Homo sapiens

<400> 4336

```
Met Pro Leu Ala Cys Glu His Pro Val Gly Val Ser Ser Ser Val Gly
1                   5                   10                  15
Asn Ala Gly Arg Ala Gly Val Gly Thr Gln Ala Trp Gly Thr Thr Glu
                20                  25                  30
Arg Thr Gln His Pro Gly Pro Ala Gln His Cys Pro Cys Gly Leu Arg
        35                  40                  45
Val Phe Val Leu Gln Glu Lys Arg Val Val Ser Arg Asn Trp Ala Arg
        50                  55                  60
Gly Thr Cys Gly Pro Arg Val Thr Asn Glu Met Leu Glu Asp Glu Asp
65                  70                  75                  80
Ala Glu Asp His Gly Gly Thr Phe Cys Leu Gly Glu Leu Val Glu Leu
                85                  90                  95
Ala Val Thr Met Glu Asn Lys Ala Glu Gly Lys Arg Ile Val Ser Glu
                100                 105                 110
Lys Pro Thr Arg Ala Arg Asn Gln Gly Ile Glu Gly Ser Pro Gly Gly
        115                 120                 125
```

Arg Val Thr Arg Ser Pro Pro Thr Gln Val Ala Ile Ser Ser Asp Ser
        130   135   140

Ala Arg Lys Gly Ser Trp Glu Pro Trp Ser Arg Pro Val Gly Glu Pro
145   150   155   160

Pro Glu Ala Gly Trp Asp Tyr Ala Gln Trp Lys Gln Glu Arg Glu Gln
                165   170   175

Ile Asp Leu Ala Arg Leu Ala Arg His Arg Asp Ala Gln Gly Asp Trp
            180   185   190

Arg Arg Pro Trp Asp Leu Asp Lys Ala Lys Ser Thr Leu Gln Asp Cys
            195   200   205

Ser Gln Leu Arg Gly Glu Gly Pro Ala Arg Ala Gly Ser Arg Arg Gly
        210   215   220

Glu Pro Thr Pro Thr Ser Ser Leu Pro Ser Leu Ala Leu Phe Ile Phe
225   230   235   240

His Pro Leu Val Leu Ser Phe Leu Cys Leu Leu Val Ser Tyr Phe Gln
                245   250   255

Ser

<210> 4337

<211> 117

<212> PRT

<213> Homo sapiens

<400> 4337

Met Pro Ser Arg Gln Leu Glu Asp Pro Gly Ala Gly Thr Pro Ser Pro
 1   5   10   15

Val Arg Leu His Ala Leu Ala Gly Phe Gln Gln Arg Ala Leu Cys His
            20   25   30

Ala Leu Thr Phe Pro Ser Leu Gln Arg Leu Val Tyr Ser Met Cys Ser
        35   40   45

Leu Cys Gln Glu Glu Asn Glu Asp Met Val Pro Asp Ala Leu Gln Gln
        50   55   60

Asn Pro Gly Ala Phe Arg Leu Ala Pro Ala Leu Pro Ala Arg Pro His
 65   70   75   80

Arg Gly Leu Ser Thr Phe Pro Gly Ala Glu His Cys Leu Arg Ala Ser
             85   90   95

Pro Lys Thr Thr Leu Ser Gly Gly Phe Phe Val Ala Val Ile Glu Arg
           100   105   110

Val Glu Met Pro Thr
         115

<210> 4338

<211> 232

<212> PRT

<213> Homo sapiens

<400> 4338

Met Leu Met Glu Thr Ala Ala Arg Thr Ala Arg Ala Thr Ser Cys Pro
 1   5   10   15

Val Gln Gly Asp Gly Gln Glu Val Thr Cys Arg Gly Ala Leu Ala Leu
          20   25   30

Pro Ser Ala Gln Leu Asp Leu Leu Gly Leu Gly Leu Val Glu Pro Gly
       35   40   45

Thr Gln Cys Gly Pro Arg Met Val Cys Gln Ser Arg Arg Cys Arg Lys
      50   55   60

Asn Ala Phe Gln Glu Leu Gln Arg Cys Leu Thr Ala Cys His Ser His
65   70   75   80

Gly Val Cys Asn Ser Asn His Asn Cys His Cys Ala Pro Gly Trp Ala
          85   90   95

Pro Pro Phe Cys Asp Lys Pro Gly Phe Gly Gly Ser Met Asp Ser Gly
          100   105   110

Pro Val Gln Ala Glu Asn His Asp Thr Phe Leu Leu Ala Met Leu Leu
          115   120   125

Ser Val Leu Leu Pro Leu Leu Pro Gly Ala Gly Leu Ala Trp Cys Cys
       130   135   140

Tyr Arg Leu Pro Gly Ala His Leu Gln Arg Cys Ser Trp Gly Cys Arg
145   150   155   160

Arg Asp Pro Ala Cys Ser Gly Pro Lys Asp Gly Pro His Arg Asp His
          165   170   175

```
Pro Leu Gly Gly Val His Pro Thr Glu Leu Gly Pro Thr Ala Thr Gly
            180               185               190
Gln Ser Trp Pro Leu Asp Pro Glu Asn Ser His Glu Pro Ser Ser His
            195               200               205
Pro Glu Lys Pro Leu Pro Ala Val Ser Pro Asp Pro Gln Asp Gln Val
        210               215               220
Gln Met Pro Arg Ser Cys Leu Trp
225               230
```

<210> 4339

<211> 141

<212> PRT

<213> Homo sapiens

<400> 4339

```
Met Met Gly Ser Thr His Ile Tyr Asp Met Ser Thr Val Met Ser Arg
  1               5               10               15
Lys Gly Pro Ala Pro Glu Leu Gln Gly Val Glu Val Ala Leu Ala Pro
                20               25               30
Glu Glu Leu Glu Leu Asp Pro Met Ala Met Thr Gln Lys Tyr Glu Glu
            35               40               45
His Val Arg Glu Gln Gln Ala Gln Val Glu Lys Glu Asp Phe Ser Asp
        50               55               60
Met Val Ala Glu His Ala Ala Lys Gln Lys Val Gly Ala Ser Arg Gly
65               70               75               80
Ala Gly Leu Gly Glu Ser Gln Gly Pro Trp Pro Ala Val Phe Ser Gly
                85               90               95
Met Val Pro Ser Ser Gly Glu Ser Glu Gly Gly Leu Cys Leu Leu Leu
            100               105               110
Cys Ala Ser Leu Asp Leu Glu Val Leu Glu Ile Leu Gln Trp Ala Ala
            115               120               125
Leu Phe Lys Asp Asp Glu Gly Glu Glu Leu Ser Gln Val
        130               135               140
```

<210> 4340

<211> 352

<212> PRT

<213> Homo sapiens

<400> 4340

```
Met Ser Gln Ile Arg Lys Leu Asp Glu Asp Ala Ser Pro Asn Glu Glu
 1               5                  10                  15
Lys Gly Asp Val Pro Lys Asp Thr Leu Asp Asp Leu Phe Pro Asn Glu
                20                  25                  30
Asp Glu Gln Ser Pro Ala Pro Ser Pro Gly Gly Gly Asp Val Ser Gly
            35                  40                  45
Gln His Gly Gly Tyr Glu Ile Pro Ala Arg Leu Arg Ile Leu His Asn
        50                  55                  60
Leu Val Ile Gln Tyr Ala Ser Gln Gly Arg Tyr Glu Val Ala Val Pro
65                  70                  75                  80
Leu Cys Lys Gln Ala Leu Glu Asp Leu Glu Lys Thr Ser Gly His Asp
                85                  90                  95
His Pro Asp Val Ala Thr Met Leu Asn Ile Leu Ala Leu Val Tyr Arg
                100                 105                 110
Asp Gln Asn Lys Tyr Lys Glu Ala Ala His Leu Leu Asn Asp Ala Leu
            115                 120                 125
Ala Ile Arg Glu Lys Thr Leu Gly Lys Asp His Pro Ala Val Ala Ala
        130                 135                 140
Thr Leu Asn Asn Leu Ala Val Leu Tyr Gly Lys Arg Gly Lys Tyr Lys
145                 150                 155                 160
Glu Ala Glu Pro Leu Cys Lys Arg Ala Leu Glu Ile Arg Glu Lys Val
                165                 170                 175
Leu Gly Lys Phe His Pro Asp Val Ala Lys Gln Leu Ser Asn Leu Ala
                180                 185                 190
Leu Leu Cys Gln Asn Gln Gly Lys Ala Glu Glu Val Glu Tyr Tyr Tyr
            195                 200                 205
Arg Arg Ala Leu Glu Ile Tyr Ala Thr Arg Leu Gly Pro Asp Asp Pro
        210                 215                 220
Asn Val Ala Lys Thr Lys Asn Asn Leu Ala Ser Cys Tyr Leu Lys Gln
225                 230                 235                 240
```

```
Gly Lys Tyr Gln Asp Ala Glu Thr Leu Tyr Lys Glu Ile Leu Thr Arg
                245                250                255
Ala His Glu Lys Glu Phe Gly Ser Val Asn Gly Asp Asn Lys Pro Ile
                260                265                270
Trp Met His Ala Glu Glu Arg Glu Glu Ser Lys Asp Lys Arg Arg Asp
            275                280                285
Ser Ala Pro Tyr Gly Glu Tyr Gly Ser Trp Tyr Lys Ala Cys Lys Val
        290                295                300
Asp Ser Pro Ile Val Asn Thr Thr Leu Arg Ser Leu Gly Ala Leu Tyr
305                310                315                320
Arg Arg Gln Gly Lys Leu Glu Ala Ala His Thr Leu Glu Asp Cys Ala
                325                330                335
Ser Arg Thr Ala Ser Arg Val Trp Thr Pro Gln Ala Arg Pro Arg Trp
                340                345                350
```

<210> 4341
<211> 112
<212> PRT
<213> Homo sapiens

<400> 4341
```
Met Val Arg Trp Val Pro Thr Arg Arg Val Val Val Ile Cys Asp Gly
  1                5                10                15
Thr Cys Ser His Thr Leu Leu Cys Thr Pro Pro Gly Ser Pro Lys Ser
                20                25                30
Leu His Ala Gly Ser Pro His Pro Ser Cys Ser Arg Lys His Val Arg
            35                40                45
Lys Gln Ser Arg Arg Leu Leu Arg Gly Arg His Glu Ser Thr Leu Val
        50                55                60

Leu Lys Pro Phe Pro Asn Val Leu Val Asp Cys Val Val Leu Pro Lys
65                70                75                80
Leu Pro Ala Ala Gly Ala Arg Glu Val Thr Pro Ala Gly Ala Ala Ala
                85                90                95
Gly Gly Ser Pro Arg Trp Leu Ala Leu Phe Leu Phe Cys Phe Phe Phe
```

100   105   110

<210> 4342

<211> 1253

<212> PRT

<213> Homo sapiens

<400> 4342

Met Gln Ala Asp Lys Cys Arg Thr Ser Ser Arg Ser Val Lys Lys Glu
 1   5   10   15

Leu Val Ile Glu Ser Pro Leu Gln Tyr Lys Asp Ala Ala Gln Gly Glu
                20   25   30

Val Glu Ala Glu Ser Pro Gly Pro Val Pro Ala Lys Pro Lys Leu Ile
          35   40   45

Glu Pro Leu Asp Tyr Glu Asn Val Ile Val Gln Lys Lys Thr Gln Ile
       50   55   60

Leu Asn Asp Cys Leu Arg Glu Met Leu Leu Phe Pro Tyr Asp Asp Phe
65   70   75   80

Gln Thr Ala Ile Leu Arg Arg Gln Gly Arg Tyr Ile Cys Ser Thr Val
                85   90   95

Pro Ala Lys Ala Glu Glu Glu Ala Gln Ser Leu Phe Val Thr Glu Cys
             100   105   110

Ile Lys Thr Tyr Asn Ser Asp Trp His Leu Val Asn Tyr Lys Tyr Glu
             115   120   125

Asp Tyr Ser Gly Glu Phe Arg Gln Leu Pro Asn Lys Val Val Lys Leu
          130   135   140

Asp Lys Leu Pro Val His Val Tyr Glu Val Asp Glu Glu Val Asp Lys
145   150   155   160

Asp Glu Asp Ala Ala Ser Leu Gly Pro Gln Lys Gly Gly Ile Thr Lys
             165   170   175

His Gly Trp Leu Tyr Lys Gly Asn Met Asn Ser Ala Ile Ser Val Thr
          180   185   190

Met Arg Ser Phe Lys Arg Arg Phe Phe His Leu Ile Gln Leu Gly Asp
          195   200   205

Gly Ser Tyr Asn Leu Asn Phe Tyr Lys Asp Glu Lys Ile Ser Lys Glu

```
        210                215                220
Pro Lys Gly Ser Ile Phe Leu Asp Ser Cys Met Gly Val Val Gln Asn
225                230                235                240
Asn Lys Val Arg Arg Phe Ala Phe Glu Leu Lys Met Gln Asp Lys Ser
                245                250                255
Ser Tyr Leu Leu Ala Ala Asp Ser Glu Val Glu Met Glu Glu Trp Ile
                260                265                270
Thr Ile Leu Asn Lys Ile Leu Gln Leu Asn Phe Glu Ala Ala Met Gln
                275                280                285
Glu Lys Arg Asn Gly Asp Pro His Glu Asp Asp Glu Gln Ser Lys Leu
        290                295                300
Glu Gly Ser Gly Ser Gly Leu Asp Ser Tyr Leu Pro Glu Leu Ala Lys
305                310                315                320
Ser Ala Arg Glu Ala Glu Ile Lys Leu Lys Ser Glu Ser Arg Val Lys
                325                330                335
Leu Phe Tyr Leu Asp Pro Asp Ala Gln Lys Leu Asp Phe Ser Ser Ala
                340                345                350
Glu Pro Glu Val Lys Ser Phe Glu Glu Lys Phe Gly Lys Arg Ile Leu
                355                360                365
Val Lys Cys Asn Asp Leu Ser Phe Asn Leu Gln Cys Cys Val Ala Glu
                370                375                380
Asn Glu Glu Gly Pro Thr Thr Asn Val Glu Pro Phe Phe Val Thr Leu
385                390                395                400
Ser Leu Phe Asp Ile Lys Tyr Asn Arg Lys Ile Ser Ala Asp Phe His
                405                410                415
Val Asp Leu Asn His Phe Ser Val Arg Gln Met Leu Ala Thr Thr Ser
                420                425                430
Pro Ala Leu Met Asn Gly Ser Gly Gln Ser Pro Ser Val Leu Lys Gly
                435                440                445
Ile Leu His Glu Ala Ala Met Gln Tyr Pro Lys Gln Gly Ile Phe Ser
                450                455                460
Val Thr Cys Pro His Pro Asp Ile Phe Leu Val Ala Arg Ile Glu Lys
465                470                475                480
Val Leu Gln Gly Ser Ile Thr His Cys Ala Glu Pro Tyr Met Lys Ser
                485                490                495
Ser Asp Ser Ser Lys Val Ala Gln Lys Val Leu Lys Asn Ala Lys Gln
```

```
                500                       505                       510
Ala Cys Gln Arg Leu Gly Gln Tyr Arg Met Pro Phe Ala Trp Ala Ala
            515                       520                       525
Arg Thr Leu Phe Lys Asp Ala Ser Gly Asn Leu Asp Lys Asn Ala Arg
        530                       535                       540
Phe Ser Ala Ile Tyr Arg Gln Asp Ser Asn Lys Leu Ser Asn Asp Asp
545                       550                       555                       560
Met Leu Lys Leu Leu Ala Asp Phe Arg Lys Pro Glu Lys Met Ala Lys
                565                       570                       575
Leu Pro Val Ile Leu Gly Asn Leu Asp Ile Thr Ile Asp Asn Val Ser
            580                       585                       590
Ser Asp Phe Pro Asn Tyr Val Asn Ser Ser Tyr Ile Pro Thr Lys Gln
            595                       600                       605
Phe Glu Thr Cys Ser Lys Thr Pro Ile Thr Phe Glu Val Glu Glu Phe
        610                       615                       620
Val Pro Cys Ile Pro Lys His Thr Gln Pro Tyr Thr Ile Tyr Thr Asn
625                       630                       635                       640
His Leu Tyr Val Tyr Pro Lys Tyr Leu Lys Tyr Asp Ser Gln Lys Ser
                645                       650                       655
Phe Ala Lys Ala Arg Asn Ile Ala Ile Cys Ile Glu Phe Lys Asp Ser
            660                       665                       670
Asp Glu Glu Asp Ser Gln Pro Leu Lys Cys Ile Tyr Gly Arg Pro Gly
            675                       680                       685
Gly Pro Val Phe Thr Arg Ser Ala Phe Ala Ala Val Leu His His His
        690                       695                       700
Gln Asn Pro Glu Phe Tyr Asp Glu Ile Lys Ile Glu Leu Pro Thr Gln
705                       710                       715                       720
Leu His Glu Lys His His Leu Leu Leu Thr Phe Phe His Val Ser Cys
                725                       730                       735
Asp Asn Ser Ser Lys Gly Ser Thr Lys Lys Arg Asp Val Val Glu Thr
            740                       745                       750
Gln Val Gly Tyr Ser Trp Leu Pro Leu Leu Lys Asp Gly Arg Val Val
        755                       760                       765
Thr Ser Glu Gln His Ile Pro Val Ser Ala Asn Leu Pro Ser Gly Tyr
        770                       775                       780
Leu Gly Tyr Gln Glu Leu Gly Met Gly Arg His Tyr Gly Pro Glu Ile
```

```
785                  790                  795                  800
Lys Trp Val Asp Gly Gly Lys Pro Leu Leu Lys Ile Ser Thr His Leu
                805                  810                  815
Val Ser Thr Val Tyr Thr Gln Asp Gln His Leu His Asn Phe Phe Gln
                820                  825                  830
Tyr Cys Gln Lys Thr Glu Ser Gly Ala Gln Ala Leu Gly Asn Glu Leu
            835                  840                  845
Val Lys Tyr Leu Lys Ser Leu His Ala Met Glu Gly His Val Met Ile
        850                  855                  860
Ala Phe Leu Pro Thr Ile Leu Asn Gln Leu Phe Arg Val Leu Thr Arg
865                  870                  875                  880
Ala Thr Gln Glu Glu Val Ala Val Asn Val Thr Arg Val Ile Ile His
                885                  890                  895
Val Val Ala Gln Cys His Glu Glu Gly Leu Glu Ser His Leu Arg Ser
                900                  905                  910
Tyr Val Lys Tyr Ala Tyr Lys Ala Glu Pro Tyr Val Ala Ser Glu Tyr
            915                  920                  925
Lys Thr Val His Glu Glu Leu Thr Lys Ser Met Thr Thr Ile Leu Lys
        930                  935                  940
Pro Ser Ala Asp Phe Leu Thr Ser Asn Lys Leu Leu Lys Tyr Ser Trp
945                  950                  955                  960
Phe Phe Phe Asp Val Leu Ile Lys Ser Met Ala Gln His Leu Ile Glu
                965                  970                  975
Asn Ser Lys Val Lys Leu Leu Arg Asn Gln Arg Phe Pro Ala Ser Tyr
                980                  985                  990
His His Ala Val Glu Thr Val Val Asn Met Leu Met Pro His Ile Thr
            995                  1000                 1005
Gln Lys Phe Arg Asp Asn Pro Glu Ala Ser Lys Asn Ala Asn His Ser
        1010                 1015                 1020
Leu Ala Val Phe Ile Lys Arg Cys Phe Thr Phe Met Asp Arg Gly Phe
1025                 1030                 1035                 1040
Val Phe Lys Gln Ile Asn Asn Tyr Ile Ser Cys Phe Ala Pro Gly Asp
                1045                 1050                 1055
Pro Lys Thr Leu Phe Glu Tyr Lys Phe Glu Phe Leu Arg Val Val Cys
            1060                 1065                 1070
Asn His Glu His Tyr Ile Pro Leu Asn Leu Pro Met Pro Phe Gly Lys
```

```
              1075                1080                1085
Gly Arg Ile Gln Arg Tyr Gln Asp Leu Gln Leu Asp Tyr Ser Leu Thr
        1090                1095                1100
Asp Glu Phe Cys Arg Asn His Phe Leu Val Gly Leu Leu Leu Arg Glu
1105                1110                1115                1120
Val Gly Thr Ala Leu Gln Glu Phe Arg Glu Val Arg Leu Ile Ala Ile
                1125                1130                1135
Ser Val Leu Lys Asn Leu Leu Ile Lys His Ser Phe Asp Asp Arg Tyr
            1140 ·             1145                1150
Ala Ser Arg Ser His Gln Ala Arg Ile Ala Thr Leu Tyr Leu Pro Leu
            1155                1160                1165
Phe Gly Leu Leu Ile Glu Asn Val Gln Arg Ile Asn Val Arg Asp Val
        1170                1175                1180
Ser Pro Phe Pro Val Asn Ala Gly Met Thr Val Lys Asp Glu Ser Leu
1185                1190                1195                1200
Ala Leu Pro Ala Val Asn Pro Leu Val Thr Pro Gln Lys Gly Ser Thr
                1205                1210                1215
Leu Asp Asn Ser Leu His Lys Asp Leu Leu Gly Ala Ile Ser Gly Ile
                1220                1225                1230
Gly Asn Ala Pro Cys Ser Cys Gly Leu Leu Ser Thr Ile Thr Leu Lys
            1235                1240                1245
Val Ser Trp Ser Gln
        1250
```

<210> 4343

<211> 104

<212> PRT

<213> Homo sapiens

<400> 4343

```
Met Cys His His Ala Trp Leu Ser Phe Val Phe Leu Val Glu Thr Gly
1               5               10              15
Phe His His Ile Gly Gln Ala Gly Leu Glu Leu Leu Thr Ser Ser Asp
            20              25              30
Pro Pro Thr Ser Ala Ser Gln Ser Ala Gly Ile Thr Gly Met Ser His
```

```
              35                      40                      45
His Thr Arg Leu Ser Asn Thr Ile Leu Ser Arg Ser Gly Glu Arg Gly
         50                      55                      60
His Pro Cys Leu Val Pro Val Phe Lys Gly Asn Ala Ser Ser Phe Cys
65                      70                      75                      80
Pro Phe Ser Ile Ile Leu Ala Val Phe Val Ile Asn Ser Ser Tyr Tyr
                        85                      90                      95
Phe Glu Ile His Ser Ile Ser Thr
                        100
```

<210> 4344

<211> 772

<212> PRT

<213> Homo sapiens

<400> 4344

```
Met Asp Thr Glu Phe Gly Ala Ser Ser Phe Phe His Ser Pro Ala Ser
1                       5                       10                      15
Cys His Glu Ser His Ser Ser Leu Ser Pro Glu Ser Ser Ala Pro Gln
                 20                      25                      30
His Ser Ser Pro Ser Arg Ser Ala Leu Lys Leu Leu Thr Ser Val Glu
              35                      40                      45
Val Asp Asn Ile Glu Pro Ser Ala Phe His Arg Gln Gly Leu Pro Lys
         50                      55                      60
Ala Pro Gly Trp Thr Glu Lys Asn Ser His His Ser Trp Glu Pro Leu
65                       70                      75                      80
Asp Ala Pro Glu Gly Lys Leu Gln Gly Ser Arg Cys Asp Asn Ser Ser
                 85                      90                      95
Cys Ser Lys Leu Pro Pro Gln Glu Gly Arg Gly Ile Ala Gln Glu Gln
                 100                     105                     110
Leu Phe Gln Glu Lys Lys Asp Pro Ala Asn Pro Ser Pro Val Met Pro
              115                     120                     125
Gly Ile Ala Thr Ser Glu Arg Gly Asp Glu His Ser Leu Gly Cys Ser
         130                     135                     140
Pro Ser Asn Ser Ser Ala Gln Pro Ser Leu Pro Leu Tyr Arg Thr Cys
```

```
    145                    150                    155                    160
His Pro Ile Met Pro Val Ala Ser Ser Phe Val Leu His Cys Pro Asp
                    165                    170                    175
Pro Val Gln Lys Thr Asn Gln Cys Leu Gln Gly Gln Ser Leu Lys Thr
                    180                    185                    190 .
Ser Leu Thr Leu Lys Val Asp Arg Gly Ser Glu Glu Thr Tyr Arg Pro
                195                    200                    205
Glu Phe Pro Ser Thr Lys Gly Leu Val Arg Ser Leu Ala Glu Gln Phe
            210                    215                    220
Gln Arg Met Gln Gly Val Ser Met Arg Asp Ser Thr Gly Phe Lys Asp
225                    230                    235                    240
Arg Ser Leu Ser Gly Ser Leu Arg Lys Asn Ser Ser Pro Ser Asp Ser
                    245                    250                    255
Lys Pro Pro Phe Ser Gln Gly Gln Glu Lys Gly His Trp Pro Trp Ala
                    260                    265                    270
Lys Gln Gln Ser Ser Leu Glu Gly Gly Asp Arg Pro Leu Ser Trp Glu
                275                    280                    285
Glu Ser Thr Glu His Ser Ser Leu Ala Leu Asn Ser Gly Leu Pro Asn
            290                    295                    300
Gly Glu Thr Ser Ser Gly Gly Gln Pro Arg Leu Ala Glu Pro Asp Ile
305                    310                    315                    320
Tyr Gln Glu Lys Leu Ser Gln Val Arg Asp Val Arg Ser Lys Asp Leu
                    325                    330                    335
Gly Ser Ser Thr Asp Leu Gly Thr Ser Leu Pro Leu Asp Ser Trp Val
                340                    345                    350
Asn Ile Thr Arg Phe Cys Asp Ser Gln Leu Lys His Gly Ala Pro Arg
            355                    360                    365
Pro Gly Met Lys Ser Ser Pro His Asp Ser His Thr Cys Val Thr Tyr
            370                    375                    380
Pro Glu Arg Asn His Ile Leu Leu His Pro His Trp Asn Gln Asp Thr
385                    390                    395                    400
Glu Gln Glu Thr Ser Glu Leu Glu Ser Leu Tyr Gln Ala Ser Leu Gln
                    405                    410                    415
Ala Ser Gln Ala Gly Cys Ser Gly Trp Gly Gln Gln Asp Thr Ala Trp
                420                    425                    430
His Pro Leu Ser Gln Thr Gly Ser Ala Asp Gly Met Gly Arg Arg Leu
```

```
              435                    440                    445
His Ser Ala His Asp Pro Gly Leu Ser Lys Thr Ser Thr Ala Glu Met
     450                    455                    460
Glu His Gly Leu His Glu Ala Arg Thr Val Arg Thr Ser Gln Ala Thr
465                    470                    475                    480
Pro Cys Arg Gly Leu Ser Arg Glu Cys Gly Glu Asp Glu Gln Tyr Ser
                    485                    490                    495
Ala Glu Asn Leu Arg Arg Ile Ser Arg Ser Leu Ser Gly Thr Val Val
                    500                    505                    510
Pro Glu Arg Glu Glu Ala Pro Val Ser Ser His Ser Phe Asp Ser Ser
                    515                    520                    525
Asn Val Arg Lys Pro Leu Glu Thr Gly His Arg Cys Ser Ser Ser Ser
     530                    535                    540
Ser Leu Pro Val Ile His Asp Pro Ser Val Phe Leu Leu Gly Pro Gln
545                    550                    555                    560
Leu Tyr Leu Pro Gln Pro Gln Phe Leu Ser Pro Asp Val Leu Met Pro
                    565                    570                    575
Thr Met Ala Gly Glu Pro Asn Arg Leu Pro Gly Thr Ser Arg Ser Val
                    580                    585                    590
Gln Gln Phe Leu Ala Met Cys Asp Arg Gly Glu Thr Ser Gln Gly Ala
                    595                    600                    605
Lys Tyr Thr Gly Arg Thr Leu Asn Tyr Gln Ser Leu Pro His Arg Ser

              610                    615                    620
Arg Thr Asp Asn Ser Trp Ala Pro Trp Ser Glu Thr Asn Gln His Ile
625                    630                    635                    640
Gly Thr Arg Phe Leu Thr Thr Pro Gly Cys Asn Pro Gln Leu Thr Tyr
                    645                    650                    655
Thr Ala Thr Leu Pro Glu Arg Ser Lys Gly Leu Gln Val Pro His Thr
                    660                    665                    670
Gln Ser Trp Ser Asp Leu Phe His Ser Pro Ser His Pro Pro Ile Val
                    675                    680                    685
His Pro Val Tyr Pro Pro Ser Ser Ser Leu His Val Pro Leu Arg Ser
     690                    695                    700
Ala Trp Asn Ser Asp Pro Val Pro Gly Ser Arg Thr Pro Gly Pro Arg
705                    710                    715                    720
```

Arg Val Asp Met Pro Pro Asp Asp Asp Trp Arg Gln Ser Ser Tyr Ala
                725   730   735

Ser His Ser Gly His Arg Arg Thr Val Gly Glu Gly Phe Leu Phe Val
                740   745   750

Leu Ser Asp Ala Pro Arg Arg Glu Gln Ile Arg Ala Arg Val Leu Gln
                755   760   765

His Ser Gln Trp
                770

<210> 4345

<211> 235

<212> PRT

<213> Homo sapiens

<400> 4345

Met Asp Leu Ser Leu His Val Ala Ser Leu Cys Leu Pro His His Pro
    1   5   10   15

Ser Pro Ala Gln Leu Lys Pro Ala Gly Ala Leu Cys Arg Gln Ala Met

                20   25   30

Gly Asp Cys Asp Leu Pro Glu Phe Cys Thr Gly Thr Ser Ser His Cys
                35   40   45

Pro Pro Asp Val Tyr Leu Leu Asp Gly Ser Pro Cys Ala Arg Gly Ser
    50   55   60

Gly Tyr Cys Trp Asp Gly Ala Cys Pro Thr Leu Glu Gln Gln Cys Gln
65   70   75   80

Gln Leu Trp Gly Pro Gly Glu Arg Thr Arg Ala Pro Leu His Pro Ala
                85   90   95

Pro His Pro Leu Val Gly Pro Val Phe Tyr Cys Gly Glu Asp Gly Gln
                100   105   110

Gly Lys Leu Arg Pro Ala Glu Arg Ser Pro Ser Pro Ser Cys Pro Gln
                115   120   125

Pro Gly Pro Cys Phe Leu Arg Leu Pro Pro Ser Ser Arg Gly Leu Phe
                130   135   140

Pro Gly Gly Glu Leu Cys Gly Arg Cys Ser Trp Lys Leu Arg Pro Gly

```
        145                 150                 155                 160
Gln Arg Gly Pro Leu Pro Ala Leu Cys Arg Glu Gly Cys Pro Val Trp
                    165                 170                 175
Glu Ala Ala Val Pro Gly Trp Lys Ala Gln Pro Ala Arg Thr Ala His
                    180                 185                 190
Gly Ala Ser Gly Leu Tyr Arg Ser Pro Arg Trp Pro Gly Ser Asp Leu
                195                 200                 205
Ser Gly Ser Leu Gly Thr Pro Gln Cys Pro Ala Gly Pro Ala Trp Pro
            210                 215                 220
Gly Pro Gly Arg Ala Arg His Pro Val Trp Thr
225                 230                 235
```

<210> 4346

<211> 125

<212> PRT

<213> Homo sapiens

<400> 4346

```
Met Gly Lys Arg Glu Gln Val Gly Arg Arg Ser Gly Ala Trp Ala Glu
 1                   5                  10                  15
Ala Ala Met Leu Cys Phe Leu Leu Gln Val Glu Ala Ser Gly Val Tyr
                    20                  25                  30
Ala Ala Ser Lys Glu Gly Gly His Gly Arg Gly Val Leu Ser His Ala
                35                  40                  45
Ala Arg Ala Gly Arg Pro Trp Glu Ala Ala His Phe Phe Leu Gly Pro
            50                  55                  60
Asp Ala Trp Ser Val Thr Thr Gly Arg Ala Gly Leu Thr Glu Ala Pro
65                  70                  75                  80
Ala Pro Ala Ala Pro Tyr Leu Pro Gly Met Ala Arg Glu Ser Arg Pro
                    85                  90                  95
Glu Gly Gly Ser Ser Arg Leu Leu Glu Gln Glu Arg Ala Gly Ser Gly
                100                 105                 110
Asp Arg Cys Val Pro Ala Ala Gln Arg Ser Gly Gln Gly
            115                 120                 125
```

<210> 4347
<211> 170
<212> PRT
<213> Homo sapiens

<400> 4347

```
Met Ala Thr Ala Thr Asn Glu Leu Gly Gln Ala Thr Cys Ala Ala Ser
 1               5                  10                  15
Leu Thr Val Arg Pro Gly Gly Ser Thr Ser Pro Phe Ser Ser Pro Ile
                20                  25                  30
Thr Ser Asp Glu Glu Tyr Leu Ser Pro Pro Glu Glu Phe Pro Glu Pro
            35                  40                  45
Gly Glu Thr Trp Pro Arg Thr Pro Thr Met Lys Pro Ser Pro Ser Gln
         50                  55                  60
Asn Arg Arg Ser Ser Asp Thr Gly Ser Lys Ala Pro Pro Thr Phe Lys
65                  70                  75                  80
Val Ser Leu Met Asp Gln Ser Val Arg Glu Gly Gln Asp Val Ile Met
                85                  90                  95
Ser Ile Arg Val Gln Gly Glu Pro Lys Pro Val Val Ser Trp Leu Arg
                100                 105                 110
Asn Arg Gln Pro Val Arg Pro Asp Gln Arg Arg Phe Ala Glu Glu Ala
            115                 120                 125
Glu Gly Gly Leu Cys Arg Leu Arg Ile Leu Ala Ala Glu Arg Gly Asp
         130                 135                 140
Ala Gly Phe Tyr Thr Cys Lys Ala Val Asn Glu Tyr Gly Ala Arg Gln
145                 150              ·     155                 160
Cys Glu Ala Arg Leu Glu Val Arg Gly Glu
                165                 170
```


<210> 4348
<211> 314
<212> PRT
<213> Homo sapiens

<400> 4348

Met Ile Leu Ala His Cys Ser Leu Asp Phe Leu Gly Ser Ser Asp Pro
1   5   10   15

Pro Gln Pro Pro Met Trp Leu Glu Pro Gln Ala Arg Ala Thr Met Pro
                20   25   30

Gly Tyr Phe Phe Val Glu Leu Gly Ser Arg Phe Val Ala Gln Ala Gly
            35   40   45

Leu Glu Leu Leu Gly Ser Ser Asn Pro Ser His Ser Ala Ser Arg Ser
        50   55   60

Val Glu Asn Ile Gly Val Gly Tyr Tyr Thr Cys Phe Ser Arg Phe Tyr
65   70   75   80

Lys Thr Ala Asp Leu Cys Val Glu Asp Arg Pro Gly Val Cys Ser Leu
                85   90   95

Arg Cys Glu Asp Val Leu Ser Arg Asp Phe Pro Trp Val Ser Ile Ser
                100   105   110

Phe Phe Leu Leu Ser Ser Lys Thr Asn Arg Arg Pro Ala Ala Val Ala
                115   120   125

Gln Ala Ser Ser Pro Ser Thr Leu Gly Gly Cys Arg Trp Arg Ile Thr
        130   135   140

Arg Pro Gly Val Arg Asp Gln Pro Gly Arg His Asp Glu Ala Leu Ser
145   150   155   160

Leu Pro Lys Met Gln Lys Leu Ala Gly Cys Asp Gly Gly Cys Leu Trp
                165   170   175

Ser Gln Leu Leu Gly Arg Leu Arg Gln Glu Asn Cys Leu Asp Pro Gly
                180   185   190

Gly Gly Gly Cys Ser Glu Pro Gly Ser Cys His Cys Thr Pro Ala Trp
                195   200   205

Ala Thr Gly Arg Asp Ser Val Ser Lys Thr Asn Thr Ile Arg Lys Cys
        210   215   220

Ser Gly Gly Gly Gly Glu Leu Leu Ile Cys Glu Asp Arg Leu Lys Ala
225   230   235   240

Thr Pro Arg Val Ala Leu Ser Thr Ser Pro Ser Arg Ile Trp Leu Pro
                245   250   255

Ala Ser Leu Lys Ile Val Val Trp His Lys Glu Arg Cys Arg Arg Leu
                260   265   270

Val Leu Ser Thr Leu Glu Phe Pro Ala Ala Gln His Leu Val Pro Ser

```
              275                    280                    285
Pro Pro Pro Ser Gln Gly Ala Ala Ile Leu Phe Gly Phe Ser Val Cys
         290                    295                    300
Gly Pro Glu Thr Asn Val Phe Pro Lys Asp
305                    310
```

<210> 4349

<211> 413

<212> PRT

<213> Homo sapiens

<400> 4349

```
Met Ser Leu Thr Thr Asp Asp Leu Leu Arg Leu Pro Ala Asp Gly Ser
 1                5                     10                    15
Phe Ser Tyr Thr Tyr Val Gly Pro Ser His Arg Thr Ser Lys Lys Asn
                 20                     25                    30
Lys Lys Cys Arg Gly Arg Leu Gly Ser Leu Asp Ile Glu Lys Asn Pro
            35                     40                    45
His Phe Gln Gly Pro Tyr Thr Ser Met Gly Lys Asp Asn Phe Val Thr
         50                     55                    60
Pro Val Ile Arg Ser Asn Ile Asn Gly Lys Gln Cys Gly Arg Leu Lys
 65                    70                    75                    80
Asn Pro Lys Leu Met Asn Arg Thr Asn Asn Cys Ile Ser Glu Ser Ser
                     85                    90                    95
Leu Ser Phe Pro Lys Lys Ser Ser Phe Lys Asp Ser Ser Glu His Ser
                 100                    105                    110
Leu Glu Lys Asn Tyr Pro Arg Trp Leu Thr Ser Gln Lys Ser Asp Leu
                 115                    120                    125
Asn Val Ser Gly Ile Thr Ser Ile Pro Asp Phe Lys Tyr Pro Val Trp
             130                    135                    140
Leu His Asn Gln Asp Leu Leu Pro Asp Ala Asn Ser Gln Arg Val Tyr
145                    150                    155                    160
Gln Ile Phe Lys Asp Asp Gln Cys Ser Pro Arg His Ser His Gln Ala
                     165                    170                    175
Gln Gly Thr Ser Arg Leu Ile Asn Lys Leu Asp Cys Phe Glu Tyr Ala
```

```
                180                     185                     190
Phe Glu Pro Ser Asn Phe Ser Asn Ser Leu Ser Asp Asp Lys Glu Leu
            195                     200                     205
Val Asn Glu Tyr Lys Cys Asp Phe Glu His Ser Gln Cys Gln Cys Glu
        210                     215                     220
Asn Pro Leu Leu Pro Gly Gln Ser Thr Lys Pro Phe Ser Gly Asp Lys
225                     230                     235                     240
Ile Glu Leu Leu Ile Leu Lys Ala Lys Arg Asn Leu Glu Gln Cys Thr
                245                     250                     255
Glu Glu Leu Pro Lys Ser Met Lys Lys Asp Asp Ser Pro Cys Ser Leu
            260                     265                     270
Asp Lys Leu Glu Ala Asp Arg Ser Trp Glu Asn Ile Pro Val Thr Phe
            275                     280                     285
Lys Ser Pro Val Pro Val Asn Ser Asp Asp Ser Pro Gln Gln Thr Ser
        290                     295                     300
Arg Ala Lys Ser Ala Lys Gly Val Leu Glu Asp Phe Leu Asn Asn Asp
305                     310                     315                     320
Asn Gln Ser Cys Thr Leu Ser Gly Gly Lys His His Gly Pro Val Glu
                325                     330                     335
Ala Leu Lys Gln Met Leu Phe Asn Leu Gln Ala Val Gln Glu Arg Phe
            340                     345                     350
Asn Gln Asn Lys Thr Thr Asp Pro Lys Glu Glu Ile Lys Gln Val Ser
            355                     360                     365
Glu Asp Asp Phe Ser Lys Leu Gln Leu Lys Glu Ser Met Ile Pro Ile
        370                     375                     380
Thr Arg Ser Leu Gln Lys Ala Leu His His Leu Ser Arg Leu Arg Asp
385                     390                     395                     400
Leu Val Asp Asp Thr Asn Gly Glu Arg Ser Pro Lys Met
                405                     410
```

<400> 4350

Met Gly Gly Lys Leu Ser Asp Ser Arg Lys Asn Leu Cys Lys Gln Ser
1   5   10   15

Ser Gln Ser Asp Thr Phe Gly Asp Pro Arg Pro Ala Gly Val Lys Ile
            20   25   30

Ser Val Asn Pro Leu Lys Cys Leu Leu Gly Val Gly His Thr Leu Pro
        35   40   45

Gly Pro Leu Ala Cys Pro Ala Leu Ala Trp Pro Val Met Ser Gly Ile
    50   55   60

Gln Gly Cys His Pro Leu Pro Lys Leu Ser Cys Gly Val Pro Gly Val
65   70   75   80

Ala Phe Pro Pro Thr Val Pro Arg Leu Pro Leu Leu Ser Val Ala Ala
            85   90   95

Pro His Ser Gly Gly Ile Met Ser Ala Gly Glu Leu Ser Leu Pro Gln
            100   105   110

His Ser Trp Pro Arg Leu Trp Ala Ser Ser Glu Ile Ala Val Thr Thr
            115   120   125

Arg Pro Ala Met Asp Ser Leu
    130   135

<210> 4351
<211> 205
<212> PRT
<213> Homo sapiens

<400> 4351

Met Leu Pro Ser Phe Tyr Ser Glu Leu Phe Thr Leu Tyr Leu Leu Leu
1   5   10   15

His Glu Arg Glu Asp Ser Phe Tyr Ser Gln Gly Ile Ala Asn Leu Ser
            20   25   30

Leu Phe Pro Asp Thr Gln Leu Leu Glu Phe Leu Asp Val Gln Lys His
        35   40   45

Leu Trp Pro Leu Lys Asp Leu Thr Leu Thr Ser Asn Gln Arg Tyr Ser
    50   55   60

Leu Val Arg Asp Lys Cys Phe Leu Ser Ala Thr Glu Cys Leu Gln Lys
65   70   75   80

Ile Met Thr Thr Val Asp Pro Arg Glu Lys Leu Glu Val Leu Glu Arg
                      85   90   95

Thr Tyr Gly Glu Ile Glu Gly Thr Val Ser Arg Val Leu Gly Arg Glu
                  100   105   110

Tyr Lys Leu Pro Met Asp Asp Leu Leu Pro Leu Leu Ile Tyr Val Val
              115   120   125

Ser Arg Ala Arg Trp Gly Ser Gln Gly Pro Glu Lys Gly Gly Ser Gln
        130   135   140

Pro Gly Cys Trp Gly Ala Arg Gly Arg Val Arg Thr Thr Pro Gln Val
145   150   155   160

Ser Ser His Pro Gly Gln Arg Ser Phe Pro Ser Cys Leu Ser Ala Thr
                  165   170   175

Gly Leu Phe Ser Leu Ser Pro Ser Leu Ser Trp Trp Gly Gly Val Leu
              180   185   190

Gln Asn Ser Ala Pro Gly Ser Arg Asp Pro Pro Asp Pro
          195   200   205

<210> 4352

<211> 416

<212> PRT

<213> Homo sapiens

<400> 4352

Met Ser Pro Ala Met Leu Ser Val Leu Val Lys Met Met Leu Ala Gln
    1   5   10   15

Ala Gln Glu Ser Val Phe Glu Lys Ile Ser Leu Pro Gly Ile Arg Asn
                  20   25   30

Glu Phe Phe Met Leu Val Lys Val Ala Gln Glu Ala Ala Lys Val Gly
              35   40   45

Glu Val Tyr Gln Gln Leu His Ala Ala Met Ser Gln Ala Pro Val Lys
          50   55   60

Glu Asn Ile Pro Tyr Ser Trp Ala Ser Leu Ala Cys Val Lys Ala His
65   70   75   80

His Tyr Ala Ala Leu Ala His Tyr Phe Thr Ala Ile Leu Leu Ile Asp
               85   90   95

His Gln Val Lys Pro Gly Thr Asp Leu Asp His Gln Glu Lys Cys Leu
           100   105   110

Ser Gln Leu Tyr Asp His Met Pro Glu Gly Leu Thr Pro Leu Ala Thr
           115   120   125

Leu Lys Asn Asp Gln Gln Arg Arg Gln Leu Gly Lys Ser His Leu Arg
           130   135   140

Arg Ala Met Ala His His Glu Glu Ser Val Arg Glu Ala Ser Leu Cys
145   150   155   160

Lys Lys Leu Arg Ser Ile Glu Val Leu Gln Lys Val Leu Cys Ala Ala
               165   170   175

Gln Glu Arg Ser Arg Leu Thr Tyr Ala Gln His Gln Glu Glu Asp Asp
           180   185   190

Leu Leu Asn Leu Ile Asp Ala Pro Ser Val Val Ala Lys Thr Glu Gln
           195   200   205

Glu Val Asp Ile Ile Leu Pro Gln Phe Ser Lys Leu Thr Val Thr Asp
          210   215   220

Phe Phe Gln Lys Leu Gly Pro Leu Ser Val Phe Ser Ala Asn Lys Arg
225   230   235   240

Trp Thr Pro Pro Arg Ser Ile Arg Phe Thr Ala Glu Glu Gly Asp Leu
               245   250   255

Gly Phe Thr Leu Arg Gly Asn Ala Pro Val Gln Val His Phe Leu Asp
           260   265   270

Pro Tyr Cys Ser Ala Ser Val Ala Gly Ala Arg Glu Gly Asp Tyr Ile
          275   280   285

Val Ser Ile Gln Leu Val Asp Cys Lys Trp Leu Thr Leu Ser Glu Val
          290   295   300

Met Lys Leu Leu Lys Ser Phe Gly Glu Asp Glu Ile Glu Met Lys Val
305   310   315   320

Val Ser Leu Leu Asp Ser Thr Ser Ser Met His Asn Lys Ser Ala Thr
               325   330   335

Tyr Ser Val Gly Met Gln Lys Thr Tyr Ser Met Ile Cys Leu Ala Ile
           340   345   350

Asp Asp Asp Asp Lys Thr Asp Lys Thr Lys Lys Ile Ser Lys Lys Leu
          355   360   365

Ser Phe Leu Ser Trp Gly Thr Asn Lys Asn Arg Gln Lys Ser Ala Ser
    370   375   380

Thr Leu Cys Leu Pro Ser Val Gly Ala Ala Arg Pro Gln Val Lys Lys
385   390   395   400

Lys Leu Pro Ser Pro Phe Ser Leu Leu Asn Ser Asp Ser Ser Trp Tyr
            405   410   415

<210> 4353

<211> 296

<212> PRT

<213> Homo sapiens

<400> 4353

Met Ser Ala Leu Ile Leu Pro Arg Met Lys Gly Pro Arg Leu Thr His
1   5   10   15

Pro Glu Ser Arg Ala His Gln Ala Leu Pro Gly His Ser Leu Ser Ser
            20   25   30

Ser Ser His Ser Leu Arg Ser Ala Cys Ala Thr Gln Ile Gln Thr Ser
        35   40   45

Arg Thr Trp Glu Val Glu Trp Leu Thr Arg Gly His Pro Leu Glu Glu
        50   55   60

Ala Lys Ala Gly Leu Glu Pro Arg Pro Val Gly Val Gln Val Arg Pro
65   70   75   80

Leu Pro Ala Ala Gln Cys Pro Leu Ser Ser Ser Ser Leu Gly Thr Leu
            85   90   95

Glu Pro Gln Trp Gly Val Gln Gly Ser Ala Gln Pro Phe Pro Arg Cys
            100   105   110

Val Thr Pro Ser Thr Phe Leu Pro Leu Ser Val Pro Leu Gly Val Ala
            115   120   125

Arg Glu Leu Gly Gly Val Ile Leu His His Glu His Pro Pro Phe Ser
        130   135   140

Pro Ser Ala Glu Lys Ser Val Pro Leu Cys Ile Leu Tyr Glu Lys Tyr
145   150   155   160

Arg Asp Cys Leu Thr Glu Ser Asn Leu Ile Lys Val Arg Ala Leu Leu
            165   170   175

Val Glu Pro Val Ile Asn Ser Tyr Leu Leu Ala Glu Arg Asp Leu Tyr
            180   185   190

Leu Glu Asn Pro Glu Ile Lys Ile Arg Ile Leu Gly Glu Pro Lys Gln
            195   200   205

Lys Arg Lys Leu Val Ala Glu Val Ser Leu Gln Asn Pro Leu Pro Val
        210   215   220

Ala Leu Glu Gly Cys Thr Phe Thr Val Glu Gly Ala Gly Leu Thr Glu
225   230   235   240

Glu Gln Lys Thr Val Glu Ile Pro Asp Pro Val Glu Ala Gly Glu Glu
                245   250   255

Val Lys Val Arg Met Asp Leu Leu Pro Leu His Met Gly Leu His Lys
            260   265   270

Leu Val Val Asn Phe Glu Ser Asp Lys Leu Lys Ala Val Lys Gly Phe
            275   280   285

Arg Asn Val Ile Ile Gly Pro Ala
    290   295

<210> 4354
<211> 130
<212> PRT
<213> Homo sapiens

<400> 4354
Met Ser Ala Leu Ala Val Ser Met Ala Met Val Arg Gly Ser Leu Pro
    1   5   10   15

Ser Glu Ser Arg Ala Pro Arg Ser Ala Pro Arg Phe Arg Asn Arg Gln
                20   25   30

Ala Ser Leu Glu Arg Arg Ala Arg Val Ser Arg Pro Pro Asn Phe Ser
                35   40   45

Gln Pro Ser Ser Pro Cys His His Pro Tyr Pro Val Trp Pro Arg Met
        50   55   60

Val Ala Trp Cys Ser Gly Pro Arg Pro Ala Leu Ser Ala Trp Phe Thr
65   70   75   80

Phe Ala Pro Phe Trp Arg Arg Asn Ser Gln Ala Arg Arg Glu Phe Cys
                85   90   95

Met Glu Lys Ser Arg Arg Gly Val Glu Gly Gly Ile Pro Ser Gly Gly
            100   105   110

Phe Gln Asp Val Leu Gly Trp Arg Gln Phe Arg Glu Trp Glu Gly Gly
            115   120   125

Val Trp
    130

<210> 4355

<211> 213

<212> PRT

<213> Homo sapiens

<400> 4355

Met Glu Pro Ala Pro Val Ser Ala Pro Thr Arg Ser Pro Cys Ser Pro
1   5   10   15

Ser Leu Trp Ser Pro Gln Asp Ala Glu Pro Asn Gly Gly Arg Ala Gly
            20   25   30

His Ala Gly Gly Arg Val Ala Leu Ala Ser Gln His Pro Ala Gln Arg
            35   40   45

Lys Pro Leu Leu Arg Gly Arg Pro His Arg Gly Ala Val Gly Pro Asp
        50   55   60

Gly Cys Ala Leu Leu Pro Gln Val Ser Pro Pro Ala Pro Ala Pro Ala
65   70   75   80

His Ser Ala Asp Ser Ala Pro Arg Ala Thr Gly Ser Ala Pro Trp Thr
                85   90   95

Ala Pro Ala Ala Pro Asn Pro Ala Gly Asp Leu Pro Gly Gly Ser Trp
            100   105   110

Ser Ser Pro Ser His Pro Asp Ala Ser Leu Arg Ser Asn Ser Arg Ala
            115   120   125

Asn Phe Gln Leu Gln Pro Leu Leu Pro Pro Ala Gly Gly Ala Ser His
        130   135   140

Arg Pro Pro Thr Pro Ser Ile Pro Ser Thr His Ser Pro Thr Pro Cys
145   150   155   160

Gly Ser Leu Gln Lys Arg Pro Gly Arg Leu Cys Pro Pro Ala Pro Pro
                165   170   175

Gly Leu Ser Pro Ser Arg Thr His Leu Ser Ser Arg Thr Leu Phe Pro
           180   185   190

Gly Gly Thr Leu Leu Thr Lys Pro Lys Asp Gln Thr Glu Arg Pro Phe
           195   200   205

Leu Pro Ser Pro Thr
    210

<210> 4356

<211> 333

<212> PRT

<213> Homo sapiens

<400> 4356

Met Lys Tyr Arg Ser Cys Ala Asp Cys Val Leu Ala Arg Asp Pro Tyr
  1   5   10   15

Cys Ala Trp Ser Val Asn Thr Ser Arg Cys Val Ala Val Gly Gly His
           20   25   30

Ser Gly Ser Leu Leu Ile Gln His Val Met Thr Ser Asp Thr Ser Gly
          35   40   45

Ile Cys Asn Leu Arg Gly Ser Lys Lys Val Arg Pro Thr Pro Lys Asn
    50   55   60

Ile Thr Val Val Ala Gly Thr Asp Leu Val Leu Pro Cys His Leu Ser
65   70   75   80

Ser Asn Leu Ala His Ala Arg Trp Thr Phe Gly Gly Arg Asp Leu Pro
          85   90   95

Ala Glu Gln Pro Gly Ser Phe Leu Tyr Asp Ala Arg Leu Gln Ala Leu
          100   105   110

Val Val Met Ala Ala Gln Pro Arg His Ala Gly Ala Tyr His Cys Phe
          115   120   125

Ser Glu Glu Gln Gly Ala Arg Leu Ala Ala Glu Gly Tyr Leu Val Ala
    130   135   140

Val Val Ala Gly Pro Ser Val Thr Leu Glu Ala Arg Ala Pro Leu Glu
145   150   155   160

Asn Leu Gly Leu Val Trp Leu Ala Val Val Ala Leu Gly Ala Val Cys
          165   170   175

Leu Val Leu Leu Leu Leu Val Leu Ser Leu Arg Arg Arg Leu Arg Glu
        180   185   190

Glu Leu Glu Lys Gly Ala Lys Ala Thr Glu Arg Thr Leu Val Tyr Pro
        195   200   205

Leu Glu Leu Pro Lys Glu Pro Thr Ser Pro Pro Phe Arg Pro Cys Pro
     210   215   220

Glu Pro Asp Glu Lys Leu Trp Asp Pro Val Gly Tyr Tyr Tyr Ser Asp
225   230   235   240

Gly Ser Leu Lys Ile Val Pro Gly His Ala Arg Cys Gln Pro Gly Gly
          245   250   255

Gly Pro Pro Ser Pro Pro Pro Gly Ile Pro Gly Gln Pro Leu Pro Ser
        260   265   270

Pro Thr Arg Leu His Leu Gly Gly Gly Arg Asn Ser Asn Ala Asn Gly
        275   280   285

Tyr Val Arg Leu Gln Leu Gly Gly Glu Asp Arg Gly Gly Leu Gly His
      290   295   300

Pro Leu Pro Glu Leu Ala Asp Glu Leu Arg Arg Lys Leu Gln Gln Arg
305   310   315   320

Gln Pro Leu Pro Asp Ser Asn Pro Glu Glu Ser Ser Val
        325   330

<210> 4357

<211> 180

<212> PRT

<213> Homo sapiens

<400> 4357

Met Leu Glu Gly Val Ser Asn Glu Phe Asp His Phe Gly Ile Ser Leu
  1   5   10   15

Pro Leu Lys Ile Cys Leu His Leu Gly Trp Asp Glu Gly Leu Val Glu
        20   25   30

Gly Lys Val Val Arg Leu Gly Gln Gly Ile Gly Lys Ser Ile Cys Ser
        35   40   45

Ser Cys Gln Leu Phe Glu Glu Ala Pro Thr Gln Met Ser Thr Val Pro
      50   55   60

Ser Gly Leu Pro Leu Pro Ile Leu Met His Leu Cys Leu Leu Pro Val
65   70   75   80

Cys Met Ala His Leu Cys Pro Ala Ser Pro Cys Tyr Phe Gly Ala Thr
                 85   90   95

Pro Gly Ser Gly Lys Phe Cys Arg Leu Ile Thr Tyr Ser His Ser Ser
             100   105   110

Pro Gln Leu Ala Ala Ser Leu Arg His Arg Gly Arg Glu Val Gly Lys
         115   120   125

Asp Leu Pro Tyr Pro Gly Leu Cys Pro Leu Thr Phe His Pro Ser Phe
     130   135   140

Phe Pro Pro Val Glu Gly Cys Val Ser Ser Leu Pro Gly Lys Leu Leu
145   150   155   160

Ser Pro Gln Thr Ile Phe Phe Gln Ile Leu Trp Leu Tyr Ser Lys Ser
             165   170   175

Ser Leu Val Leu
         180

<210> 4358

<211> 1222

<212> PRT

<213> Homo sapiens

<400> 4358

Met Leu Asp Pro Ser Ser Ser Glu Glu Glu Ser Asp Glu Gly Leu Glu
 1   5   10   15

Glu Glu Ser Arg Asp Val Leu Val Ala Ala Gly Ser Ser Gln Arg Ala
             20   25   30

Pro Pro Ala Pro Thr Arg Glu Gly Gln Leu Asp Asp Glu Gln Glu Arg
         35   40   45

Arg Ile Arg Leu Gln Leu Tyr Val Phe Val Val Arg Cys Ile Ala Tyr
     50   55   60

Pro Phe Asn Ala Lys Gln Pro Thr Asp Met Ala Arg Arg Gln Gln Lys
65   70   75   80

Leu Asn Lys Gln Gln Leu Gln Leu Leu Lys Glu Arg Phe Gln Ala Phe
             85   90   95

Leu Asn Gly Glu Thr Gln Ile Val Ala Asp Glu Ala Phe Cys Asn Ala
     100   105   110

Val Arg Ser Tyr Tyr Glu Val Phe Leu Lys Ser Asp Arg Val Ala Arg
     115   120   125

Met Val Gln Ser Gly Gly Cys Ser Ala Asn Asp Phe Arg Glu Val Phe
     130   135   140

Lys Lys Asn Ile Glu Lys Arg Val Arg Ser Leu Pro Glu Ile Asp Gly
145   150   155   160

Leu Ser Lys Glu Thr Val Leu Ser Ser Trp Ile Ala Lys Tyr Asp Ala
     165   170   175

Ile Tyr Arg Gly Glu Glu Asp Leu Cys Lys Gln Pro Asn Arg Met Ala
     180   185   190

Leu Ser Ala Val Ser Glu Leu Ile Leu Ser Lys Glu Gln Leu Tyr Glu
     195   200   205

Met Phe Gln Gln Ile Leu Gly Ile Lys Lys Leu Glu His Gln Leu Leu
     210   215   220

Tyr Asn Ala Cys Gln Leu Asp Asn Ala Asp Glu Gln Ala Ala Gln Ile
225   230   235   240

Arg Arg Glu Leu Asp Gly Arg Leu Gln Leu Ala Asp Lys Met Ala Lys
     245   250   255

Glu Arg Lys Phe Pro Lys Phe Ile Ala Lys Asp Met Glu Asn Met Tyr
     260   265   270

Ile Glu Glu Leu Arg Ser Ser Val Asn Leu Leu Met Ala Asn Leu Glu
     275   280   285

Ser Leu Pro Val Ser Lys Gly Gly Pro Glu Phe Lys Leu Gln Lys Leu
     290   295   300

Lys Arg Ser Gln Asn Ser Ala Phe Leu Asp Ile Gly Asp Glu Asn Glu
305   310   315   320

Ile Gln Leu Ser Lys Ser Asp Val Val Leu Ser Phe Thr Leu Glu Ile
     325   330   335

Val Ile Met Glu Val Gln Gly Leu Lys Ser Val Ala Pro Asn Arg Ile
     340   345   350

Val Tyr Cys Thr Met Glu Val Glu Gly Glu Lys Leu Gln Thr Asp Gln
     355   360   365

Ala Glu Ala Ser Arg Pro Gln Trp Gly Thr Gln Gly Asp Phe Thr Thr
     370   375   380

Thr His Pro Arg Pro Val Val Lys Val Lys Leu Phe Thr Glu Ser Thr
385   390   395   400

Gly Val Leu Ala Leu Glu Asp Lys Glu Leu Gly Arg Val Ile Leu Tyr
               405   410   415

Pro Thr Ser Asn Ser Ser Lys Ser Ala Glu Leu His Arg Met Val Val
               420   425   430

Pro Lys Asn Ser Gln Asp Ser Asp Leu Lys Ile Lys Leu Ala Val Arg
               435   440   445

Met Asp Lys Pro Ala His Met Lys His Ser Gly Tyr Leu Tyr Ala Leu
      450   455   460

Gly Gln Lys Val Trp Lys Arg Trp Lys Lys Arg Tyr Phe Val Leu Val
465   470   475   480

Gln Val Ser Gln Tyr Thr Phe Ala Met Cys Ser Tyr Arg Glu Lys Lys
               485   490   495

Ser Glu Pro Gln Glu Leu Met Gln Leu Glu Gly Tyr Thr Val Asp Tyr
               500   505   510

Thr Asp Pro His Pro Gly Leu Gln Gly Gly Cys Met Phe Phe Asn Ala
               515   520   525

Val Lys Glu Gly Asp Thr Val Ile Phe Ala Ser Asp Asp Glu Gln Asp
      530   535   540

Arg Ile Leu Trp Val Gln Ala Met Tyr Arg Ala Thr Gly Gln Ser Tyr
545   550   555   560

Lys Pro Val Pro Ala Ile Gln Thr Gln Lys Leu Asn Pro Lys Gly Gly
               565   570   575

Thr Leu His Ala Asp Ala Gln Leu Tyr Ala Asp Arg Phe Gln Lys His
               580   585   590

Gly Met Asp Glu Phe Ile Ser Ala Asn Pro Cys Lys Leu Asp His Ala
               595   600   605

Phe Leu Phe Arg Ile Leu Gln Arg Gln Thr Leu Asp His Arg Leu Asn
      610   615   620

Asp Ser Tyr Ser Cys Leu Gly Trp Phe Ser Pro Gly Gln Val Phe Val
625   630   635   640

Leu Asp Glu Tyr Cys Ala Arg Tyr Gly Val Arg Gly Cys His Arg His
               645   650   655

Leu Cys Tyr Leu Ala Glu Leu Met Glu His Ser Glu Asn Gly Ala Val
               660   665   670

Ile Asp Pro Thr Leu Leu His Tyr Ser Phe Ala Phe Cys Ala Ser His
        675   680   685

Val His Gly Asn Arg Pro Asp Gly Ile Gly Thr Val Ser Val Glu Glu
        690   695   700

Lys Glu Arg Phe Glu Glu Ile Lys Glu Arg Leu Ser Ser Leu Leu Glu
705   710   715   720

Asn Gln Ile Ser His Phe Arg Tyr Cys Phe Pro Phe Gly Arg Pro Glu
                725   730   735

Gly Ala Leu Lys Ala Thr Leu Ser Leu Leu Glu Arg Val Leu Met Lys
                740   745   750

Asp Ile Ala Thr Pro Ile Pro Ala Glu Glu Val Lys Lys Val Val Arg
            755   760   765

Lys Cys Leu Glu Lys Ala Ala Leu Ile Asn Tyr Thr Arg Leu Thr Glu
        770   775   780

Tyr Ala Lys Ile Glu Glu Thr Met Asn Gln Ala Ser Pro Ala Arg Lys
785   790   795   800

Leu Glu Glu Ile Leu His Leu Ala Glu Leu Cys Ile Glu Val Leu Gln
                805   810   815

Gln Asn Glu Glu His His Ala Glu Ala Phe Ala Trp Trp Pro Asp Leu
                820   825   830

Leu Ala Glu His Ala Glu Lys Phe Trp Ala Leu Phe Thr Val Asp Met
            835   840   845

Asp Thr Ala Leu Glu Ala Gln Pro Gln Asp Ser Trp Asp Ser Phe Pro
        850   855   860

Leu Phe Gln Leu Leu Asn Asn Phe Leu Arg Asn Asp Thr Leu Leu Cys
865   870   875   880

Asn Gly Lys Phe His Lys His Leu Gln Glu Ile Phe Val Pro Leu Val
                885   890   895

Val Arg Tyr Val Asp Leu Met Glu Ser Ser Ile Ala Gln Ser Ile His
            900   905   910

Arg Gly Phe Glu Gln Glu Thr Trp Gln Pro Val Asn Asn Gly Ser Ala
            915   920   925

Thr Ser Glu Asp Leu Phe Trp Lys Leu Asp Ala Leu Gln Met Phe Val
        930   935   940

Phe Asp Leu His Trp Pro Glu Gln Glu Phe Ala His His Leu Glu Gln
945   950   955   960

Arg Leu Lys Leu Met Ala Ser Asp Met Leu Glu Ala Cys Val Lys Arg
                965   970   975

Thr Arg Thr Ala Phe Glu Leu Lys Leu Gln Lys Ala Ser Lys Thr Thr
            980   985   990

Asp Leu Arg Ile Pro Ala Ser Val Cys Thr Met Phe Asn Val Leu Val
            995   1000   1005

Asp Ala Lys Lys Gln Ser Thr Lys Leu Cys Ala Leu Asp Gly Gly Gln
        1010   1015   1020

Glu Phe Gly Ser Gln Trp Gln Gln Tyr His Ser Lys Ile Asp Asp Leu
1025   1030   1035   1040

Ile Asp Asn Ser Val Lys Glu Ile Ile Leu Leu Leu Val Ser Lys Phe
                1045   1050   1055

Val Ser Val Leu Glu Gly Val Leu Ser Lys Leu Ser Arg Tyr Asp Glu
            1060   1065   1070

Gly Thr Phe Phe Ser Ser Ile Leu Ser Phe Thr Val Lys Ala Ala Val
            1075   1080   1085

Lys Tyr Val Asp Val Pro Lys Pro Gly Met Asp Leu Ala Asp Thr Tyr
        1090   1095   1100

Ile Met Phe Val Arg Gln Asn Gln Asp Ile Leu Arg Glu Lys Val Asn
1105   1110   1115   1120

Glu Glu Met Tyr Ile Glu Lys Leu Phe Asp Gln Trp Tyr Ser Ser Ser
                1125   1130   1135

Met Lys Val Ile Cys Val Trp Leu Thr Asp Arg Leu Asp Leu Gln Leu
            1140   1145   1150

His Ile Tyr Gln Leu Lys Thr Leu Ile Lys Ile Val Lys Lys Thr Tyr
        1155   1160   1165

Arg Asp Phe Arg Leu Gln Gly Val Leu Glu Gly Thr Leu Asn Ser Lys
        1170   1175   1180

Thr Tyr Asp Thr Val His Arg Arg Leu Thr Val Glu Glu Ala Thr Ala
1185   1190   1195   1200

Ser Val Ser Glu Gly Gly Gly Leu Gln Gly Ile Thr Met Lys Asp Ser
            1205   1210   1215

Asp Glu Glu Glu Glu Gly
        1220

<210> 4359

<211> 141

<212> PRT

<213> Homo sapiens

<400> 4359

Met Asn Gln Leu Pro Ala Gly Pro Pro Val Pro Gly Ser Gly Ser Gly

1   5   10   15

Pro Leu Ala Ala Cys Pro Glu Leu Thr Ser Ala Thr Ser Pro Trp Leu

          20   25   30

Gln Val Gly Thr Asn Ala Met Asp Ser Pro Leu Leu Lys Tyr Ser Ala

          35   40   45

Lys Asp Tyr Phe Phe Lys Ala Ala Leu Cys His Phe Cys Ile Asp Met

          50   55   60

Leu Asn Ala Lys Leu Ala Val Gln Lys Tyr Glu Glu Leu Phe Pro Ala

65   70   75   80

Phe Ser Asp Ser Arg Glu Cys Lys Leu Met Lys Lys Leu Leu Glu Ala

          85   90   95

His Glu Glu Gln Asn Val Asp Ser Tyr Thr Glu Ser Val Lys Glu Tyr

          100   105   110

Asp Ser Ile Ser Arg Leu Asp Gln Trp Leu Thr Thr Met Leu Leu Arg

          115   120   125

Ile Lys Lys Thr Ile Gln Gly Asp Glu Glu Asp Leu Arg

          130   135   140

<210> 4360

<211> 545

<212> PRT

<213> Homo sapiens

<400> 4360

Met Glu Leu Ser Gln Lys Leu Tyr Lys Tyr Cys Pro Lys Glu Trp Lys

1   5   10   15

Lys Glu Ala Ser Lys Gly Ile Asp Gln Phe Gly Pro Pro Met Ile Ile
       20   25   30

His Phe Arg Val Gln Tyr Tyr Val Glu Asn Gly Arg Leu Ile Ser Asp
       35   40   45

Arg Ala Ala Arg Tyr Tyr Tyr Tyr Trp His Leu Arg Lys Gln Val Leu
    50   55   60

His Ser Gln Cys Val Leu Arg Glu Glu Ala Tyr Phe Leu Leu Ala Ala
65   70   75   80

Phe Ala Leu Gln Ala Asp Leu Val Asn Phe Lys Arg Asn Lys His Tyr
         85   90   95

Gly Lys Tyr Phe Glu Pro Glu Ala Tyr Phe Pro Ser Trp Val Val Ser
        100   105   110

Lys Arg Gly Lys Asp Tyr Ile Leu Lys His Ile Pro Asn Met His Lys
        115   120   125

Asp Gln Phe Ala Leu Thr Ala Ser Glu Ala His Leu Lys Tyr Ile Lys
        130   135   140

Glu Ala Val Arg Leu Asp Asp Val Ala Val His Tyr Tyr Arg Leu Tyr
145   150   155   160

Lys Asp Lys Arg Glu Ile Glu Ala Ser Leu Thr Leu Gly Leu Thr Met
        165   170   175

Arg Gly Ile Gln Ile Phe Gln Asn Leu Asp Glu Glu Lys Gln Leu Leu
        180   185   190

Tyr Asp Phe Pro Trp Thr Asn Val Gly Lys Leu Val Phe Val Gly Lys
        195   200   205

Lys Phe Glu Ile Leu Pro Asp Gly Leu Pro Ser Ala Arg Lys Leu Ile
        210   215   220

Tyr Tyr Thr Gly Cys Pro Met Arg Ser Arg His Leu Leu Gln Leu Leu
225   230   235   240

Ser Asn Ser His Arg Leu Tyr Met Asn Leu Gln Pro Val Leu Arg His
        245   250   255

Ile Arg Lys Leu Glu Glu Asn Glu Glu Lys Lys Gln Tyr Arg Glu Ser
        260   265   270

Tyr Ile Ser Asp Asn Leu Asp Leu Asp Met Asp Gln Leu Glu Lys Arg
        275   280   285

Ser Arg Ala Ser Gly Ser Ser Ala Gly Ser Met Lys His Lys Arg Leu
        290   295   300

Ser Arg His Ser Thr Ala Ser His Ser Ser Ser His Thr Ser Gly Ile
305   310   315   320

Glu Ala Asp Thr Lys Pro Arg Asp Thr Gly Pro Glu Asp Ser Tyr Ser
               325   330   335

Ser Ser Ala Ile His Arg Lys Leu Lys Thr Cys Ser Ser Met Thr Ser
               340   345   350

His Gly Ser Ser His Thr Ser Gly Val Glu Ser Gly Gly Lys Asp Arg
               355   360   365

Leu Glu Glu Asp Leu Gln Asp Asp Glu Ile Glu Met Leu Val Asp Asp
    370   375   380

Pro Arg Asp Leu Glu Gln Met Asn Glu Glu Ser Leu Glu Val Ser Pro
385   390   395   400

Asp Met Cys Ile Tyr Ile Thr Glu Asp Met Leu Met Ser Arg Lys Leu
               405   410   415

Asn Gly His Ser Gly Leu Ile Val Lys Glu Ile Gly Ser Ser Thr Ser
               420   425   430

Ser Ser Ser Glu Thr Val Val Lys Leu Arg Gly Gln Ser Thr Asp Ser
               435   440   445

Leu Pro Gln Thr Ile Cys Arg Lys Pro Lys Thr Ser Thr Asp Arg His
    450   455   460

Ser Leu Ser Leu Asp Asp Ile Arg Leu Tyr Gln Lys Asp Phe Leu Arg
465   470   475   480

Ile Ala Gly Leu Cys Gln Asp Thr Ala Gln Ser Tyr Thr Phe Gly Cys
               485   490   495

Gly His Glu Leu Asp Glu Glu Gly Leu Tyr Cys Asn Ser Cys Leu Ala
               500   505   510

Gln Gln Cys Ile Asn Ile Gln Asp Ala Phe Pro Val Lys Arg Thr Ser
               515   520   525

Lys Tyr Phe Ser Leu Asp Leu Thr His Asp Glu Val Pro Glu Phe Val
    530   535   540

Val
545

<210> 4361
<211> 168

<212> PRT

<213> Homo sapiens

<400> 4361

Met Cys Glu Pro Glu Cys Lys Thr Gln Leu Thr Ala Ser Thr Trp Arg
1   5   10   15

Ser Gly Thr Pro Gly His Thr Gly Pro Tyr Ala Gly Ser Leu Trp Asp
                20   25   30

Pro Lys Pro Leu Trp Val Val Leu Gly Asp Ser Ser Ser Trp Ala Phe
            35   40   45

Pro Ala Asn Cys His Arg Cys Leu Cys Tyr Ser Ala Phe Leu His Leu
        50   55   60

Gly Gln Asn Asn Phe Ala Glu Ala His Arg Phe Phe Thr Glu Ile Leu
65   70   75   80

Arg Met Asp Pro Arg Asn Ala Val Ala Asn Asn Asn Ala Ala Val Cys
                85   90   95

Leu Leu Tyr Leu Gly Lys Leu Lys Asp Ser Leu Arg Gln Leu Glu Ala
            100   105   110

Met Val Gln Gln Asp Pro Arg His Tyr Leu His Glu Ser Val Leu Phe
        115   120   125

Asn Leu Thr Thr Met Tyr Glu Leu Glu Ser Ser Arg Ser Met Gln Lys
        130   135   140

Lys Gln Ala Leu Leu Glu Ala Val Ala Gly Lys Glu Gly Asp Ser Phe
145   150   155   160

Asn Thr Gln Cys Leu Lys Leu Ala
                165

<210> 4362

<211> 108

<212> PRT

<213> Homo sapiens

<400> 4362

Met Pro Gln Ala Leu Pro Cys Leu Leu Pro Cys Arg Tyr Leu Ser His
1   5   10   15

Thr Glu Leu Ala Pro Leu Arg Ala Pro Leu Ile Pro Met Glu His Cys
                20   25   30
Thr Thr Arg Phe Phe Glu Thr Cys Asp Leu Asp Asn Asp Lys Tyr Ile
                35   40   45
Ala Leu Asp Glu Trp Ala Gly Cys Phe Gly Ile Lys Gln Ser Glu Cys
        50   55   60
Leu Asn Lys Glu Ala Arg Gly Met Gly Arg Asn Thr Ala Pro Arg Val
65   70   75   80
Leu Gly Cys His Pro Pro Thr Leu Arg Ser Leu Gly Leu Ser Val Val
                85   90   95
Cys Pro Leu Cys Leu Ser Leu Leu Ser Leu Pro Ile
            100   105

<210> 4363

<211> 163

<212> PRT

<213> Homo sapiens

<400> 4363

Met Ser Asn Ala Ser Phe Leu Ser Val Cys Leu Leu Ala Glu Asn Pro
1   5   10   15
Val Gln Leu Ser Pro Gly Cys His Gly Lys Tyr Asp Lys Glu Arg Thr
                20   25   30
Leu Gly Leu Gly Leu Lys Gly Leu Val Ile Gln Lys Thr Arg Glu Gly
                35   40   45
Cys Thr Cys Arg Val Ile Tyr Ser Arg Asn Leu Ile Lys Tyr Leu Ala
        50   55   60
His Arg Ser Tyr Lys Glu Ser Phe Gln Arg Gly Pro Leu Ala Thr Ala
65   70   75   80
Gly Phe Phe Val Arg Asn Ile Cys Val Phe Phe Ile Arg Gly Asn Lys
                85   90   95
Thr Leu Gly Lys Glu Val Ser Ile Ile Tyr Ser His Phe Ser Ser Phe
            100   105   110
Leu Asn Lys Thr Phe Ser Ser Arg Asn Thr Ala Phe Glu Gly Leu Cys

```
                115                     120                     125
Phe Met Gln Pro Ala Ser Leu Val Asp Leu Phe Thr Arg Ser His Gln
        130                     135                     140
Val Ile Ser Ser Ile Leu Gly Arg Trp Arg Lys Gln Thr Asp Thr Val
145                     150                     155                     160
Ser Arg Cys
```

<210> 4364
<211> 118
<212> PRT
<213> Homo sapiens

<400> 4364

```
Met Arg Gln Met Leu Pro Glu Glu Gln Leu Lys Cys Glu Phe Leu Leu
    1                   5                       10                      15
Leu Lys Val Tyr Cys Asp Ser Lys Ser Cys Phe Phe Ala Ser Glu Pro
                20                      25                      30
Tyr Tyr Asn Arg Glu Gly Ser Gln Gly Pro Gln Lys Pro Met Trp Leu
            35                      40                      45
Asn Lys Val Lys Thr Ser Leu Asn Glu Gln Thr Tyr Thr Arg Val Glu
        50                      55                      60
Gly Phe Val Gln Asp Met Arg Leu Ile Phe His Asn His Lys Glu Phe
65                      70                      75                      80
Tyr Arg Glu Asp Lys Phe Thr Arg Leu Gly Ile Gln Val Gln Asp Ile
                85                      90                      95
Phe Glu Lys Asn Phe Arg Asn Ile Phe Ala Ile Gln Glu Thr Ser Lys
                100                     105                     110
Asn Ile Ile Met Phe Ile
                115
```

<210> 4365
<211> 222
<212> PRT

<213> Homo sapiens

<400> 4365

```
Met Gly Thr Ser Ala Leu Thr Val Ser Ser Ala Leu Pro Ser Val Gly
 1               5                   10                  15
Thr Ser Ala His Thr Leu Ser Ser Ala Leu Pro Val His Gly Asp Val
              20                  25                  30
Cys Thr His Arg Met Ser Ser Ala Leu Pro Ser Val Asn Gly Asp Val
          35                  40                  45
Cys Thr His Ser Val Leu Gly Thr Ala Leu Arg Gly Asp Val Cys Thr
      50                  55                  60
His Thr Val Leu Gly Thr Ala Leu Arg Gly Asp Val Cys Thr His Ser
65                  70                  75                  80
Val Leu Gly Thr Ala Leu Arg Lys Trp Gly Arg Leu His Ser Gln Asn
                  85                  90                  95
Val Leu Gly Thr Ala Leu Arg Gly Asp Val Cys Thr His Ser Val Leu
                 100                 105                 110
Gly Thr Ala Leu Arg Gly Asp Val Cys Thr His Ser Val Leu Gly Thr
             115                 120                 125
Ala Leu Arg Gly Asp Val Cys Thr His Ser Val Leu Gly Thr Ala Leu
         130                 135                 140
Arg Gly Asp Val Cys Thr His Arg Met Ser Ser Ala Leu Pro Ser Met
145                 150                 155                 160
Gly Thr Ser Ala Leu Thr Val Ser Ser Ala Leu Pro Ser Val Gly Thr
                 165                 170                 175
Ser Ala Leu Thr Glu Cys Pro Arg His Cys Pro Pro Trp Gly Arg Leu
             180                 185                 190
His Ser Gln Cys Pro Arg His Cys Pro Pro Gly Arg Leu His Thr Val
             195                 200                 205
Ser Leu Ala Gln Leu Gly Leu Gly Ala Leu Ala Leu Glu Ala
     210                 215                 220
```

<210> 4366

<211> 105

<212> PRT

<213> Homo sapiens

<400> 4366

```
Met Ser Ile Cys Leu Lys His Val Leu Phe Gly Ala Ala Val Ala Phe
 1               5                   10                  15
Leu Phe Leu Cys Ile Phe Ser Phe Ser Phe Leu Phe Phe Phe Phe Phe
                20                  25                  30
Leu Phe Val Leu Arg Phe Cys Leu Asp Leu Leu Pro Arg Leu Glu Cys
            35                  40                  45
Ser Gly Val Ile Ser Ala His Cys Asn Leu Cys Leu Pro Gly Ser Ser
        50                  55                  60
Asn Cys Pro Ala Ser Ala Ser Arg Val Ala Gly Ile Thr Gly Ala Cys
65                  70                  75                  80
His His Ala Gln Leu Ile Phe Cys Val Leu Val Glu Thr Gly Phe His
                85                  90                  95

His Val Gly Arg Leu Val Ser Asn Ser
            100                 105
```

<210> 4367
<211> 588
<212> PRT
<213> Homo sapiens

<400> 4367

```
Met Asp Leu Arg Thr Ala Val Tyr Asn Ala Ala Arg Asp Gly Lys Leu
 1               5                   10                  15
Gln Leu Leu Gln Lys Leu Leu Ser Gly Arg Ser Arg Glu Glu Leu Asp
                20                  25                  30
Glu Leu Thr Gly Glu Val Ala Gly Gly Gly Thr Pro Leu Leu Ile Ala
            35                  40                  45
Ala Arg Tyr Gly His Leu Val Gly Glu His Gln Ala Asp Leu Glu Val
        50                  55                  60
Ala Asn Arg His Gly His Thr Cys His Met Ile Ser Cys Tyr Lys Gly
65                  70                  75                  80
```

His Arg Glu Ile Ala Arg Tyr Leu Leu Glu Gln Gly Ala Gln Val Asn
              85   90   95

Arg Arg Ser Ala Lys Gly Asn Thr Ala Leu His Asp Cys Ala Glu Ser
          100   105   110

Gly Ser Leu Glu Ile Leu Gln Leu Leu Leu Gly Cys Lys Ala Arg Met
      115   120   125

Glu Arg Asp Gly Tyr Gly Met Thr Pro Leu Leu Ala Ala Ser Val Thr
     130   135   140

Gly His Thr Asn Ile Val Glu Tyr Leu Ile Gln Glu Gln Pro Gly Gln
145   150   155   160

Glu Gln Val Ala Gly Gly Glu Ala Gln Pro Gly Leu Pro Gln Glu Asp
          165   170   175

Pro Ser Thr Ser Gln Gly Cys Ala Gln Pro Gln Gly Ala Pro Cys Cys
          180   185   190

Ser Ser Ser Pro Glu Glu Pro Leu Asn Gly Glu Ser Tyr Glu Ser Cys
          195   200   205

Cys Pro Thr Ser Arg Glu Ala Ala Val Glu Ala Leu Glu Leu Pro Gly
          210   215   220

Ala Thr Tyr Val Asp Lys Lys Arg Asp Leu Leu Gly Ala Leu Lys His
225   230   235   240

Trp Arg Arg Ala Met Glu Leu Arg His Gln Gly Gly Glu Tyr Leu Pro
          245   250   255

Lys Pro Glu Pro Pro Gln Leu Val Leu Ala Tyr Asp Tyr Ser Arg Glu
          260   265   270

Val Asn Thr Thr Glu Glu Leu Glu Ala Leu Ile Thr Asp Pro Asp Glu
          275   280   285

Met Arg Met Gln Ala Leu Leu Ile Arg Glu Arg Ile Leu Gly Pro Ser
          290   295   300

His Pro Asp Thr Ser Tyr Tyr Ile Arg Tyr Arg Gly Ala Val Tyr Ala
305   310   315   320

Asp Ser Gly Asn Phe Glu Arg Cys Ile Arg Leu Trp Lys Tyr Ala Leu
          325   330   335

Asp Met Gln Gln Ser Asn Leu Glu Pro Leu Ser Pro Met Thr Ala Ser
          340   345   350

Ser Phe Leu Ser Phe Ala Glu Leu Phe Ser Tyr Val Leu Gln Asp Arg
          355   360   365

Ala Ala Lys Gly Ser Leu Gly Thr Gln Ile Gly Phe Ala Asp Leu Met
        370   375   380

Gly Val Leu Thr Lys Gly Val Arg Glu Val Glu Arg Ala Leu Gln Leu
385   390   395   400

Pro Arg Glu Pro Gly Asp Ser Ala Gln Phe Thr Lys Ala Leu Ala Ile
                    405   410   415

Ile Leu His Leu Leu Tyr Leu Leu Glu Lys Val Glu Cys Thr Pro Ser
                    420   425   430

Gln Glu His Leu Lys His Gln Thr Val Tyr Arg Leu Leu Lys Cys Ala
            435   440   445

Pro Arg Gly Lys Asn Gly Phe Thr Pro Leu His Met Ala Val Asp Lys
        450   455   460

Asp Thr Thr Asn Val Gly Arg Tyr Pro Val Gly Arg Phe Pro Ser Leu
465   470   475   480

His Val Val Lys Val Leu Leu Asp Cys Gly Ala Asp Pro Asp Ser Arg
                    485   490   495

Asp Phe Asp Asn Asn Thr Pro Leu His Ile Ala Ala Gln Asn Asn Cys
                    500   505   510

Pro Ala Ile Met Asn Ala Leu Ile Glu Ala Gly Ala His Met Asp Ala
            515   520   525

Thr Asn Ala Phe Lys Lys Thr Ala Tyr Glu Leu Leu Asp Glu Lys Leu
            530   535   540

Leu Ala Arg Gly Thr Met Gln Pro Phe Asn Tyr Val Thr Leu Gln Cys
545   550   555   560

Leu Ala Ala Arg Ala Leu Asp Lys Asn Lys Ile Pro Tyr Lys Gly Phe
                    565   570   575

Ile Pro Glu Asp Leu Glu Ala Phe Ile Glu Leu His
            580   585

<210> 4368

<211> 624

<212> PRT

<213> Homo sapiens

<400> 4368

Met Cys Met Cys Gln Ala Ser Pro Pro Pro Ala Ala Leu Ala Gly Cys
1   5   10   15

Leu Leu Ser Ser Cys Val Gln Pro Ala Arg Glu His Gly Gly Ala Phe
        20   25   30

Ser Lys Ala Glu Trp Leu Ser Asn Cys Ile Asn Lys Tyr Gly Ser Pro
        35   40   45

Tyr Thr Lys Asn Ser Gly Phe Ala Thr Cys Val Gln Asn Leu Pro Asp
        50   55   60

Gln Cys Thr Pro Asn Pro Cys Asp Arg Lys Gly Thr Gln Ala Cys Gln
65   70   75   80

Asp Leu Met Gly Asn Phe Phe Cys Leu Cys Lys Ala Gly Trp Gly Gly
            85   90   95

Arg Leu Cys Asp Lys Asp Val Asn Glu Cys Ser Gln Glu Asn Gly Gly
        100   105   110

Cys Leu Gln Ile Cys His Asn Lys Pro Gly Ser Phe His Cys Ser Cys
        115   120   125

His Ser Gly Phe Glu Leu Ser Ser Asp Gly Arg Thr Cys Gln Asp Ile
    130   135   140

Asp Glu Cys Ala Asp Ser Glu Ala Cys Gly Glu Ala Arg Cys Lys Asn
145   150   155   160

Leu Pro Gly Ser Tyr Ser Cys Leu Cys Asp Glu Gly Phe Ala Tyr Ser
            165   170   175

Ser Gln Glu Lys Ala Cys Arg Asp Val Asp Glu Cys Leu Gln Gly Arg
        180   185   190

Cys Glu Gln Val Cys Val Asn Ser Pro Gly Ser Tyr Thr Cys His Cys
        195   200   205

Asp Gly Arg Gly Gly Leu Lys Leu Ser Gln Asp Met Asp Thr Cys Glu
    210   215   220

Asp Ile Leu Pro Cys Val Pro Phe Ser Val Ala Lys Ser Val Lys Ser
225   230   235   240

Leu Tyr Leu Gly Arg Met Phe Ser Gly Thr Pro Val Ile Arg Leu Arg
            245   250   255

Phe Lys Arg Leu Gln Pro Thr Arg Leu Val Ala Glu Phe Asp Phe Arg
        260   265   270

Thr Phe Asp Pro Glu Gly Ile Leu Leu Phe Ala Gly Gly His Gln Asp
        275   280   285

Ser Thr Trp Ile Val Leu Ala Leu Arg Ala Gly Arg Leu Glu Leu Gln
    290   295   300

Leu Arg Tyr Asn Gly Val Gly Arg Val Thr Ser Ser Gly Pro Val Ile
305   310   315   320

Asn His Gly Met Trp Gln Thr Ile Ser Val Glu Glu Leu Ala Arg Asn
                325   330   335

Leu Val Ile Lys Val Asn Arg Asp Ala Val Met Lys Ile Ala Val Ala
                340   345   350

Gly Asp Leu Phe Gln Pro Glu Arg Gly Leu Tyr His Leu Asn Leu Thr
            355   360   365

Val Gly Gly Ile Pro Phe His Glu Lys Asp Leu Val Gln Pro Ile Asn
    370   375   380

Pro Arg Leu Asp Gly Cys Met Arg Ser Trp Asn Trp Leu Asn Gly Glu
385   390   395   400

Asp Thr Thr Ile Gln Glu Thr Val Lys Val Asn Thr Arg Met Gln Cys
                405   410   415

Phe Ser Val Thr Glu Arg Gly Ser Phe Tyr Pro Gly Ser Gly Phe Ala
                420   425   430

Phe Tyr Ser Leu Asp Tyr Met Arg Thr Pro Leu Asp Val Gly Thr Glu
            435   440   445

Ser Thr Trp Glu Val Glu Val Val Ala His Ile Arg Pro Ala Ala Asp
    450   455   460

Thr Gly Val Leu Phe Ala Leu Trp Ala Pro Asp Leu Arg Ala Val Pro
465   470   475   480

Leu Ser Val Ala Leu Val Asp Tyr His Ser Thr Lys Lys Leu Lys Lys
                485   490   495

Gln Leu Val Val Leu Ala Val Glu His Thr Ala Leu Ala Leu Met Glu
                500   505   510

Ile Lys Val Cys Asp Gly Gln Glu His Val Val Thr Val Ser Leu Arg
                515   520   .   525

Asp Gly Glu Ala Thr Leu Glu Val Asp Gly Thr Arg Gly Gln Ser Glu
            530   535   540

Val Ser Ala Ala Gln Leu Gln Glu Arg Leu Ala Val Leu Glu Arg His
545   550   555   560

Leu Arg Ser Pro Val Leu Thr Phe Ala Gly Gly Leu Pro Asp Val Pro
                565   570   575

Val Thr Ser Ala Pro Val Thr Ala Phe Tyr Arg Gly Cys Met Thr Leu
        580   585   590

Glu Val Asn Arg Arg Leu Leu Asp Leu Asp Glu Ala Ala Tyr Lys His
        595   600   605

Ser Asp Ile Thr Ala His Ser Cys Pro Pro Val Glu Pro Ala Ala Ala
        610   615   620

<210> 4369

<211> 528

<212> PRT

<213> Homo sapiens

<400> 4369

Met Ala Thr Ala Met Asp Trp Leu Pro Trp Ser Leu Leu Leu Phe Ser
1   5   10   15

Leu Met Cys Glu Thr Ser Ala Phe Tyr Val Pro Gly Val Ala Pro Ile
            20   25   30

Asn Phe His Gln Asn Asp Pro Val Glu Ile Lys Ala Val Lys Leu Thr
        35   40   45

Ser Ser Arg Thr Gln Leu Pro Tyr Glu Tyr Tyr Ser Leu Pro Phe Cys
    50   55   60

Gln Pro Ser Lys Ile Thr Tyr Lys Ala Glu Asn Leu Gly Glu Val Leu
65   70   75   80

Arg Glu Asp Gln Glu His Thr Tyr Arg Val Val Arg Phe Glu Val Ile
            85   90   95

Pro Gln Ser Ile Arg Leu Glu Asp Leu Lys Ala Asp Glu Lys Ser Ser
            100   105   110

Cys Thr Leu Pro Glu Gly Thr Asn Ser Ser Pro Gln Glu Ile Asp Pro
        115   120   125

Thr Lys Glu Asn Gln Leu Tyr Phe Thr Tyr Ser Val His Trp Glu Glu
        130   135   140

Ser Asp Ile Lys Trp Ala Ser Arg Trp Asp Thr Tyr Leu Thr Met Ser
145   150   155   160

Asp Val Gln Ile His Trp Phe Ser Ile Ile Asn Ser Val Val Val Val
            165   170   175

Phe Phe Leu Ser Gly Ile Leu Ser Met Ile Ile Ile Arg Thr Leu Arg
          180   185   190

Lys Asp Ile Ala Asn Tyr Asn Lys Glu Asp Asp Ile Glu Asp Thr Met
          195   200   205

Glu Glu Ser Gly Trp Lys Leu Val His Gly Asp Val Phe Arg Pro Pro
      210   215   220

Gln Tyr Pro Met Ile Leu Ser Ser Leu Leu Gly Ser Gly Ile Gln Leu
225   230   235   240

Phe Cys Met Ile Leu Ile Val Ile Phe Val Ala Met Leu Gly Met Leu
          245   250   255

Ser Pro Ser Ser Arg Gly Ala Leu Met Thr Thr Ala Cys Phe Leu Phe
          260   265   270

Met Phe Met Gly Val Phe Gly Gly Phe Ser Ala Gly Arg Leu Tyr Arg
          275   280   285

Thr Leu Lys Gly His Arg Trp Lys Lys Arg Ala Phe Cys Thr Ala Thr
          290   295   300

Leu Tyr Pro Gly Val Val Phe Gly Ile Cys Phe Val Leu Asn Cys Phe
305   310   315   320

Ile Trp Gly Lys His Ser Ser Gly Ala Val Pro Phe Pro Thr Met Val
          325   330   335

Ala Leu Leu Cys Met Trp Phe Gly Ile Ser Leu Pro Leu Val Tyr Leu
          340   345   350

Gly Tyr Tyr Phe Gly Phe Arg Lys Gln Pro Tyr Asp Asn Pro Val Arg
          355   360   365

Thr Asn Gln Ile Pro Arg Gln Ile Pro Glu Gln Arg Trp Tyr Met Asn
          370   375   380

Arg Phe Val Gly Ile Leu Met Ala Gly Ile Leu Pro Phe Gly Ala Met
385   390   395   400

Phe Ile Glu Leu Phe Phe Ile Phe Ser Ala Ile Trp Glu Asn Gln Phe
          405   410   415

Tyr Tyr Leu Phe Gly Phe Leu Phe Leu Val Phe Ile Ile Leu Val Val
          420   425   430

Ser Cys Ser Gln Ile Ser Ile Val Met Val Tyr Phe Gln Leu Cys Ala
          435   440   445

Glu Asp Tyr Arg Trp Trp Trp Arg Asn Phe Leu Val Ser Gly Gly Ser
          450   455   460

```
Ala Phe Tyr Val Leu Val Tyr Ala Ile Phe Tyr Phe Val Asn Lys Leu
465             470             475                     480
Asp Ile Val Glu Phe Ile Pro Ser Leu Leu Tyr Phe Gly Tyr Thr Ala
                485             490             495
Leu Met Val Leu Ser Phe Trp Leu Leu Thr Gly Thr Ile Gly Phe Tyr
            500             505             510
Ala Ala Tyr Met Phe Val Arg Lys Ile Tyr Ala Ala Val Lys Ile Asp
            515             520             525
```


<210> 4370

<211> 165

<212> PRT

<213> Homo sapiens

<400> 4370

```
Met Asn His Pro Phe Gln Gly Ser His Arg Gln Thr Pro Asp Phe Gly
 1               5               10              15
Glu His Leu Ala Leu Leu Pro Pro Pro Ser Ser Leu Pro Pro Pro
                20              25              30
Met Pro Phe Pro Tyr Pro Leu Pro Gln Pro Ser Pro Pro Pro Leu Phe
            35              40              45
Pro Pro Leu Pro Gln Asp Thr Pro Phe Phe Pro Gly Gln Pro Phe Pro
        50              55              60
Pro His Glu Phe Phe Asn Tyr Asn Pro Val Glu Asp Phe Ser Met Pro
65              70              75              80
Pro His Leu Gly Cys Gly Pro Gly Val Asn Phe Val Pro Gly Pro Leu
            85              90              95
Pro Pro Pro Ile Pro Gly Pro Asn Pro His Gly Gln His Trp Gly Pro
            100             105             110
Val Val His Arg Gly Met Pro Arg Tyr Val Pro Asn Ser Pro Tyr His
            115             120             125
Val Arg Arg Met Gly Gly Pro Cys Arg Gln Arg Leu Arg His Ser Glu
        130             135             140
Arg Leu Ile His Thr Tyr Lys Leu Asp Arg Arg Pro Pro Ala His Ser
145             150             155             160
```

Gly Thr Trp Pro Gly
            165

<210> 4371

<211> 367

<212> PRT

<213> Homo sapiens

<400> 4371

Met Ile Val Arg Pro Ser Thr Ala Thr Trp Asn Ser Pro Thr Met Pro
1   5   10   15

Trp Pro Leu Leu Leu Leu Leu Ala Val Ser Gly Ala Gln Thr Thr Arg
           20   25   30

Pro Cys Phe Pro Gly Cys Gln Cys Glu Val Glu Thr Phe Gly Leu Phe
           35   40   45

Asp Ser Phe Ser Leu Thr Arg Val Asp Cys Ser Gly Leu Gly Pro His
      50   55   60

Ile Met Pro Val Pro Ile Pro Leu Asp Thr Ala His Leu Asp Leu Ser
65   70   75   80

Ser Asn Arg Leu Glu Met Val Asn Glu Ser Val Leu Ala Gly Pro Gly
           85   90   95

Tyr Thr Thr Leu Ala Gly Leu Asp Leu Ser His Asn Leu Leu Thr Ser
           100   105   110

Ile Ser Pro Thr Ala Phe Ser Arg Leu Arg Tyr Leu Glu Ser Leu Asp
           115   120   125

Leu Ser His Asn Gly Leu Thr Ala Leu Pro Ala Glu Ser Phe Thr Ser
           130   135   140

Ser Pro Leu Ser Asp Val Asn Leu Ser His Asn Gln Leu Arg Glu Val
145   150   155   160

Ser Val Ser Ala Phe Thr Thr His Ser Gln Gly Arg Ala Leu His Val
           165   170   175

Asp Leu Ser His Asn Leu Ile His Arg Leu Val Pro His Pro Thr Arg
           180   185   190

Ala Gly Leu Pro Ala Pro Thr Ile Gln Ser Leu Asn Leu Ala Trp Asn
           195   200   205

Arg Leu His Ala Val Pro Asn Leu Arg Asp Leu Pro Leu Arg Tyr Leu
   210   215   220

Ser Leu Asp Gly Asn Pro Leu Ala Val Ile Gly Pro Gly Ala Phe Ala
225   230   235   240

Gly Leu Gly Gly Leu Thr His Leu Ser Leu Ala Ser Leu Gln Arg Leu
          245   250   255

Pro Glu Leu Ala Pro Ser Gly Phe Arg Glu Leu Pro Gly Leu Gln Val
          260   265   270

Leu Asp Leu Ser Gly Asn Pro Lys Leu Asn Trp Ala Gly Ala Glu Val
          275   280   285

Phe Ser Gly Leu Ser Ser Leu Gln Glu Leu Asp Leu Ser Gly Thr Asn
          290   295   300

Leu Val Pro Leu Pro Glu Ala Leu Leu Leu His Leu Pro Ala Leu Gln
305   310   315   320

Ser Val Ser Val Gly Gln Asp Val Arg Cys Arg Arg Leu Val Arg Glu
          325   330   335

Gly Thr Tyr Pro Arg Arg Pro Gly Ser Ser Pro Lys Val Ala Leu His
          340   345   350

Cys Val Asp Thr Arg Glu Ser Ala Ala Arg Gly Pro Thr Ile Leu
          355   360   365

<210> 4372

<211> 467

<212> PRT

<213> Homo sapiens

<400> 4372

Met Ser Ala Arg Val Pro Val Ser Leu Cys Ile Tyr Ile His Ala Cys
1   5   10   15

Val Pro Val Phe Leu Arg Val Leu Val Cys Ala Arg Val His Leu Cys
          20   25   30

Val Cys Gln Ser Met Cys Ala Cys Val Cys Leu Ser Ala Tyr Pro Cys
          35   40   45

Val His Val Cys Val Cys Gln Arg Ile Arg Val Cys Met Cys Val Ser
          50   55   60

Val Ser Leu Thr Met Cys Ala Cys Val Cys Gln Cys Ile Arg Val Cys
65   70   75   80

Ile Cys Val Ser Val His Val Ser Ala Cys Ala Cys Val Tyr Leu Cys
                  85   90   95

Val Ser Ile Lys Gly Pro Pro Arg Pro Gly Ala His Arg Pro Pro Gln
                  100   105   110

Arg Thr Leu His Cys Ser Asp Ser Ser Ser Asp Thr Asp Ser Phe Tyr
                  115   120   125

Gly Ala Val Glu Arg Pro Val Asp Ile Ser Leu Ser Pro Tyr Pro Thr
      130   135   140

Asp Asn Glu Asp Tyr Glu His Asp Asp Glu Asp Asp Ser Tyr Leu Glu
145   150   155   160

Pro Asp Ser Pro Glu Pro Gly Arg Leu Glu Asp Ala Leu Met His Pro
                  165   170   175

Pro Ala Tyr Pro Pro Pro Pro Val Pro Thr Pro Arg Lys Pro Ala Phe
                180   185   190

Ser Asp Met Pro Arg Ala His Ser Phe Thr Ser Lys Gly Pro Gly Pro
                195   200   205

Leu Leu Pro Pro Pro Pro Pro Lys His Gly Leu Pro Asp Val Gly Leu
      210   215   220

Ala Ala Glu Asp Ser Lys Arg Asp Pro Leu Cys Pro Arg Arg Ala Glu
225   230   235   240

Pro Cys Pro Arg Val Pro Ala Thr Pro Arg Arg Met Ser Asp Pro Pro
                245   250   255

Leu Ser Thr Met Pro Thr Ala Pro Gly Leu Arg Lys Pro Pro Cys Phe
                260   265   270

Arg Glu Ser Ala Ser Pro Ser Pro Glu Pro Trp Thr Pro Gly His Gly
                275   280   285

Ala Cys Ser Thr Ser Ser Ala Ala Ile Met Ala Thr Ala Thr Ser Arg
      290   295   300

Asn Cys Asp Lys Leu Lys Ser Phe His Leu Ser Pro Arg Gly Pro Pro
305   310   315   320

Thr Ser Glu Pro Pro Pro Val Pro Ala Asn Lys Pro Lys Phe Leu Lys
                325   330   335

Ile Ala Glu Glu Asp Pro Pro Arg Glu Ala Ala Met Pro Gly Leu Phe
                340   345   350

Val Pro Pro Val Ser Pro Arg Pro Pro Ala Leu Lys Leu Pro Val Pro
    355   360   365

Glu Ala Met Ala Arg Pro Ala Val Leu Pro Arg Pro Glu Lys Pro Gln
    370   375   380

Leu Pro His Leu Gln Arg Ser Pro Pro Asp Gly Gln Ser Phe Arg Ser
385   390   395   400

Phe Ser Phe Glu Lys Pro Arg Gln Pro Ser Gln Ala Asp Thr Gly Gly
           405   410   415

Asp Asp Ser Asp Glu Asp Tyr Glu Lys Val Pro Leu Pro Asn Ser Val
        420   425   430

Phe Val Asn Thr Thr Glu Ser Cys Glu Val Glu Arg Ser Ala Gln Ser
    435   440   445

Pro Val Cys Ala Gly Ser Ser Ala Met Pro Gly Phe Leu Leu Leu Cys
    450   455   460

Pro Ser His
465

<210> 4373
<211> 1004
<212> PRT
<213> Homo sapiens

<400> 4373
Met Glu Val Thr Asp Arg Lys Cys Ser Glu Leu Leu Tyr Val Phe Gln
1   5   10   15

Thr Gln Leu Ala Leu Lys Leu Leu Gln Cys Leu Lys Val Thr Asp Ala
        20   25   30

Pro His Phe Tyr Gly Leu Pro Ser Leu Glu Arg Thr Leu Arg Gly Met
    35   40   45

Ala Asn Leu Thr Ala Phe Pro Gly Trp Ser Ser His Ser Pro Leu Thr
    50   55   60

Lys Pro Leu Asp Ile Cys Val Lys Tyr Leu Ser Gly Leu Leu Glu Val
65   70   75   80

Ile Thr Ser Phe Tyr Val Glu Arg Gly Gly Asn Ala Met Ser Phe Met

```
                    85                    90                    95
Gly Lys Gly Val Thr Lys Ser Thr Ile Leu Cys Leu Leu His Leu Ser
            100                   105                   110
His Glu Met Met Ala Gln Ala Gly Ser Leu Glu Trp Met Ser Leu Trp
            115                   120                   125
Phe Leu Pro Leu Gly Ser His Ser Glu Glu His Ile Pro Thr Gln Gln
        130                   135                   140
Gly Leu Ala Trp Leu Ile Pro Leu Trp Val Asp Arg Asp Pro Glu Val
145                   150                   155                   160
Arg Phe Thr Ser Leu Gly Leu Gly Ser Ala Leu Thr Thr Leu Glu Thr
                165                   170                   175
Gly Cys Val Ala Leu Ala Asn Ser Cys Gln Asn Ile Ser Gly Gly Leu
            180                   185                   190
Trp Gly Thr Val Val Asn Ile Leu Leu Asp Gln Ser Glu Cys Ser Met
            195                   200                   205
Val Arg Arg Glu Ala Ala Phe Ile Leu Gln Asn Leu Leu Val Ile Pro
        210                   215                   220
Met Pro Thr Glu Ile Ile Lys Asp Tyr Thr Trp Gln Gly Pro Cys Val
225                   230                   235                   240
His Asp Glu Asp Ser Gly Leu Ser Leu Ile Gly Lys Pro Ala Leu Gln
                245                   250                   255
Ala Leu Leu Tyr His Cys His Phe Tyr Glu His Leu Asn Gln Met Val
            260                   265                   270
Lys His Cys Tyr Leu Gly Arg Cys Met Phe Asp Leu Asn Phe Ser Ala
            275                   280                   285
Phe Asp Arg Asn Ser Glu Ser Asn Asp Leu Asn Gly Leu Asp Asp Ser
        290                   295                   300
Phe Lys Phe Trp Arg Ala Pro Ser Arg Thr Ser Gln Asp Arg Asp Pro
305                   310                   315                   320
Ser Ser Leu Ser Thr Ser Glu Thr Thr Val Ala Pro Ser Leu Gly Ser
                325                   330                   335
Thr Glu Phe Gln Pro Leu Val Gln Ser Thr Thr Leu Leu Pro Glu Ala
            340                   345                   350
Ser His Asp Gln Phe Val Ala Gln Gly His Gln Glu Gly Thr Ser Pro
        355                   360                   365
Arg Pro Pro His Asp Ser Ser Leu Ser Ala Pro Leu Pro Lys Leu Cys
```

```
        370                    375                    380
Val Phe Val Thr Pro Ser Leu Leu Ser Ala Met Cys Ser Leu Leu Asp
385                    390                    395                    400
Asn Leu Leu Thr Ile Ala Pro Arg Asp Thr Ala Lys Ala Phe Arg Gln
                   405                    410                    415
Ala His Leu Ile Glu Leu Leu Cys Ser Ile Ala Asp Ala Thr Leu Ile
                   420                    425                    430
Gln Thr Cys Val Gln Glu Leu Arg Ala Leu Leu Pro Ser Ser Pro Pro
                   435                    440                    445
Ala Glu His Thr Gln Ala Gln Val Ser Phe Leu Leu Glu Tyr Leu Ser
              450                    455                    460
Ser Leu Ser Arg Leu Leu Gln Ser Cys Leu Leu Val Glu Pro Asp Leu
465                    470                    475                    480
Val Ile Gln Asp Glu Leu Val Lys Pro Leu Ile Thr Asn Ile Ile Gly
                   485                    490                    495
Ile Leu Thr Ile Cys Thr Lys Asp Val Leu Asp Lys Glu Leu Ile Ser
                   500                    505                    510
Ala Phe Tyr His Thr Trp Thr His Leu Phe Asn Leu Leu Ala Met Leu
              515                    520                    525
Leu Arg Lys Ala Gly Ala Ile Thr Leu Pro Ser Val Thr Val Ala Leu
              530                    535                    540
Ala Lys His Trp Thr Ala Ala Ile Asp Met Phe Cys Thr Cys Ala Gly
545                    550                    555                    560
Leu Ser Ala Thr Cys Pro Ala Leu Tyr Thr Ala Ser Leu Gln Phe Leu
                   565                    570                    575
Ser Val Leu Leu Thr Glu Glu Ala Lys Gly His Leu Gln Ala Lys Ser
              580                    585                    590
Lys Thr His Leu Cys Cys Ser Pro Thr Val Ala Ser Leu Leu Asp Asp
              595                    600                    605
Ser Gln Glu Asn Gln Lys Ser Leu Glu Gln Leu Ser Asp Val Ile Leu
              610                    615                    620
Gln Cys Tyr Glu Gly Lys Ser Ser Lys Asp Ile Leu Lys Arg Val Ala
625                    630                    635                    640
Ala Asn Ala Leu Met Ser Leu Leu Ala Val Ser Arg Arg Ala Gln Lys
              645                    650                    655
His Ala Leu Lys Ala Asn Leu Ile Asp Asn Cys Met Glu Gln Met Lys
```

```
                660                  665                  670
His Ile Asn Ala Gln Leu Asn Leu Asp Ser Leu Arg Pro Gly Lys Ala
            675                  680                  685
Ala Leu Lys Lys Lys Glu Asp Gly Val Ile Lys Glu Leu Ser Ile Ala
        690                  695                  700
Met Gln Leu Leu Arg Asn Cys Leu Tyr Gln Asn Glu Glu Cys Lys Glu
705                  710                  715                  720
Ala Ala Leu Glu Ala His Leu Val Pro Val Leu His Ser Leu Trp Pro
                725                  730                  735
Trp Ile Leu Met Asp Asp Ser Leu Met Gln Ile Ser Leu Gln Leu Leu
            740                  745                  750
Cys Val Tyr Thr Ala Asn Phe Pro Asn Gly Cys Ser Ser Leu Cys Trp
        755                  760                  765
Ser Ser Cys Gly Gln His Pro Val Gln Ala Thr His Arg Gly Ala Val
        770                  775                  780
Ser Asn Ser Leu Met Leu Cys Ile Leu Lys Leu Ala Ser Gln Met Pro
785                  790                  795                  800
Leu Glu Asn Thr Thr Val Gln Gln Met Val Phe Met Leu Leu Ser Asn
                805                  810                  815
Leu Ala Leu Ser His Asp Cys Lys Gly Val Ile Gln Lys Ser Asn Phe
            820                  825                  830
Leu Gln Asn Phe Leu Ser Leu Ala Leu Pro Lys Gly Gly Asn Lys His
            835                  840                  845
Leu Ser Asn Leu Thr Ile Leu Trp Leu Lys Leu Leu Leu Asn Ile Ser
        850                  855                  860
Ser Gly Glu Asp Gly Gln Gln Met Ile Leu Arg Leu Asp Gly Cys Leu
865                  870                  875                  880
Asp Leu Leu Thr Glu Met Ser Lys Tyr Lys His Lys Ser Ser Pro Leu
                885                  890                  895
Leu Pro Leu Leu Ile Phe His Asn Val Cys Phe Ser Pro Ala Asn Lys
            900                  905                  910
Pro Lys Ile Leu Ala Asn Glu Lys Val Ile Thr Val Leu Ala Ala Cys
        915                  920                  925
Leu Glu Ser Glu Asn Gln Asn Ala Gln Arg Ile Gly Ala Ala Ala Leu
        930                  935                  940
Trp Ala Leu Ile Tyr Asn Tyr Gln Lys Ala Lys Thr Ala Leu Lys Ser
```

```
945                 950                 955                 960
Pro Ser Val Lys Arg Arg Val Asp Glu Ala Tyr Ser Leu Ala Lys Lys
                965                 970                 975
Thr Phe Pro Asn Ser Glu Ala Asn Pro Leu Asn Ala Tyr Tyr Leu Lys
                980                 985                 990
Cys Leu Glu Asn Leu Val Gln Leu Leu Asn Ser Ser
                995                 1000
```

<210> 4374

<211> 550

<212> PRT

<213> Homo sapiens

<400> 4374

```
Met Gly Trp Ser Asp Leu Gln Pro Ala Met Gly Gly Glu Ala Glu Arg
 1               5                  10                  15
Phe Gln Ala Gln Leu Glu Val Lys Leu Val Thr Gly Gly Ser Pro Val
                20                  25                  30
Val Phe Thr Gly Asn Leu Thr Arg Gln Val Gly Ser Lys Leu Ala Phe
                35                  40                  45
Ser Ala Ser Leu Ser His Leu Leu Ser Asp Gln Ala Asn Val Thr Ala
            50                  55                  60
Leu Leu Glu Arg Lys Glu Glu Asn Gly Arg Arg Val Ala Ala Leu Gly
65                  70                  75                  80
Ala Glu Leu Phe Val Pro Gly Leu Val Gly Leu Arg Ala Leu Gly Leu
                85                  90                  95
Leu Gln Gln Gln Gly Gln Leu Trp Thr Asn Ser Leu Arg Ile Gln Tyr
                100                 105                 110
Ser Leu Leu Gly Gln Ala Lys Gln Ala Ala His Glu Cys Ser Thr Ser
            115                 120                 125
Gln Lys Leu Arg Ala Asp Ser Gly Ser Asp Gly Ala Tyr Arg Leu Glu
            130                 135                 140
Leu Arg His Glu Leu His Cys Thr Gln Ile Leu Ala Phe Ser His Lys
145                 150                 155                 160
Val Gln Leu Trp His Glu Glu Asp Ser Gly His Leu His Ser Gln Leu
```

```
               165                    170                    175
Glu Val Ser Tyr Gly Lys Gln Trp Asp Lys Asn Ser Asn Lys Arg His
            180                185                190
Leu Arg Val Ser Gln Thr Phe Lys Asn Asp Ser Gly Pro Ala Leu Ser
         195                200                205
Asn His Phe Met Glu Phe Val Leu Gln Val Pro Glu Arg Gln Val Asp
      210                215                220
Cys Arg Val Gln Leu Tyr His Leu Ser Leu Arg Leu Pro Tyr Val Glu
225                230                235                240
Ser Ser Ser His Leu Lys Val Gln Tyr Asn Gly Arg Pro Leu Phe Val
               245                250                255
Ala Gly Gly Gln Trp Lys Asp Thr Ser Arg Ala Thr Leu Trp Lys Trp
            260                265                270
Glu Gly Val Leu Asn Leu Asp Ser Pro Trp Leu Met Val Ser Ala Ala
            275                280                285
His Arg Leu Tyr Trp Pro His Arg Ala Val Phe Gln Ala Val Leu Glu
         290                295                300
Leu Thr Leu Gly Lys Ala Trp Thr Leu Lys Asp Leu Val Val Ser Val
305                310                315                320
Gly Cys Arg Ser Gln Gly Pro Asn Arg Glu Gly Lys Ile Gln Val Tyr
            325                330                335
Thr Ala Ala Thr Thr Tyr Leu Arg Val Ser Thr Val Thr Val Leu Ala
            340                345                350
Gln Ser Leu Phe His Ser Trp Ser Glu Leu Glu Ser Ala Trp Asn Thr
         355                360                365
Ala Val Gln Gly Glu Ile His Ala Glu Asn Ser Arg Asp Arg Lys Ile
      370                375                380
Leu Asn Cys Trp Leu Lys Gly Pro Gln Gln Glu Leu Asn Leu Thr Ala
385                390                395                400
Ala Tyr Arg His Leu Glu Trp Pro Arg Lys Thr Gln Val Ser Leu Thr
            405                410                415
Ala Val Trp Ile Gly Ala Gln Gly Gln Pro Arg Gly Leu Gln Leu Glu
            420                425                430
Gly Glu Leu Glu Glu Leu Arg Gln Asp Arg Thr Leu Tyr Arg Lys Arg
            435                440                445
Gly Ala Leu Leu Leu Arg His Pro Leu His Leu Pro Ile Pro Gln Ser
```

```
        450                  455                  460
Leu Leu Leu Gln Glu Thr Phe Thr Ala Asp Arg Arg His Gln Arg Tyr
465                  470                  475                  480
Ser Leu Glu Thr Arg Val Val Leu Asn Gly Arg Glu Glu Thr Leu Gln
                    485                  490                  495
Thr Met Val Leu Gly Cys Gln Ala Gly His Pro Tyr Val Cys Ala Gly
                    500                  505                  510
Leu Met His Pro Tyr Asp Gly Lys Val Ile Pro Arg Asn Thr Glu Gly
                    515                  520                  525
Cys Leu Val Thr Trp Asn Gln His Thr Ser Leu Ala Leu Leu Ser Gly
        530                  535                  540
Leu Glu Ser Gly Val Gln
545                  550
```

<210> 4375

<211> 147

<212> PRT

<213> Homo sapiens

<400> 4375

```
Met Gln Ala Pro Ile Pro Pro Pro Glu Pro Phe Cys Ala Ser Ser Gly
    1                   5                   10                  15
Pro Pro Cys Trp Ser Thr Phe Ser Arg Lys Leu Ser Gln Ala Arg Pro
                    20                  25                  30
Val Lys Leu Ser Phe Leu Pro Gln Ser Ser Leu Ala Pro Pro Ala His
            35                  40                  45
Thr Ala His Gln Ala Leu Ala Leu Arg Pro Gln Pro Ala Ser His Arg
            50                  55                  60
Val Gly Pro Phe Leu Pro Gln Pro Gly Gln Gly Thr Ser Ser Val Ile
65                  70                  75                  80
Ser His Thr Pro Ser Thr Ala Arg Ile Ala Gly Ala His Ile Gly Leu
                    85                  90                  95
His Thr Gly Pro Trp Leu Leu Leu Leu Pro Gly Trp Ala Gly Arg Gln
                    100                 105                 110
Gly Pro Gly Trp Ala Trp Gly Gly Ser Ser Leu Trp Ala Gly Leu Thr
```

```
                115                    120                    125
Val Ser Thr Val Trp Gly Phe Arg Glu Asp Cys Ser Ser Pro Gly Leu
        130                    135                    140
Pro Gly Val
145
```

<210> 4376

<211> 169

<212> PRT

<213> Homo sapiens

<400> 4376

```
Met Gly Thr Ala Tyr Val Ala Leu Pro Gln Pro Ser Ser Met Gln Trp
  1               5                    10                    15
Pro Gly Ser Asn Gln Arg Ser Pro Gly Arg Val Ser Cys Lys Asn Leu
                20                    25                    30
Gly Lys Arg Ala Gln Gly Gly Cys Arg Leu Leu Thr Ala Cys Leu Asp
            35                    40                    45
Arg Pro His Gly Ala Ser Pro His Ile Ala Arg Ala Leu Ala Ser Pro
        50                    55                    60
Leu Pro Thr Cys Lys Arg Gly Cys Trp Gln Gln His Phe Thr Thr Arg
 65                    70                    75                    80
Asn Leu Tyr Ser Asn Ser Lys His Ala Leu Thr His Ser Val Asn Tyr
                85                    90                    95
Pro Leu Ser Trp Pro Thr Glu Val Asp Ser Phe Arg Pro Pro Phe Val
                100                    105                    110
Gln Met Arg Lys Leu Arg Leu Thr Pro Lys Pro Gly Gly Phe Gln Met
            115                    120                    125
Trp Ser Gly Ser Leu Cys Pro Gly Asp Glu Gly Thr Arg Arg Val Trp
        130                    135                    140
Ser Arg Ala Gly Val Gly Leu Arg Cys Ser Arg Leu Ala Val Lys Gly
145                    150                    155                    160
Ala Arg Cys Glu Pro Gly Cys Trp Val
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<210> 4377

<211> 1965

<212> DNA

<213> Homo sapiens

<400> 4377

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gttagtagaa agcaaaagtt acaacagcaa ggtattttcc aaagaaaagt actttcaaac    420

aataaaggaa gttaaagaag ctaaagaaaa agggaagaag tcatcacgtg attatcgccg    480

tgcagcaaaa tatgatgtga tctctgtaca gggcacagag aaactgatag aggctactca    540

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tgatacacat ctcagtattg gacatggtgg gcggacacgc atgctcaagg agctgcaagg    660

aaaatatggg aatgtcacca agaagttat tgtcttatat ctgactctgt gtaaacagtg    720

ccaccagaag aacccagtac ccaagagagg ccttgcacca aagcccatga cttttaagga    780

catagactcc acatgccaag ttgaaatact tgacatgcag tccagtgccg atggtgagtt    840

caagttcatt ttatactacc aggatcactc aaccaagttt attattttac ggccattaag    900

aaccaaacag gcccatgagg tggtcagtgt cttgttagat attttcacaa ttcttggtac    960

acccagtgtg ttagactctg acagtggcgt tgagttcaca aaccaggttg ttcatgagct   1020

caatgagttg tggccagacc taaagattgt atctggtaag taccaccctg ccaaagcca   1080

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cagaggaaaa gattgaaggc tgcactctca ggtcaagttg tacatggcag tccttgctca   1620

aaaagacaaa agttcaggtc tgtgtatta ttcttagggc tgccataaaa aattaccaca   1680

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gggtcacttg agatcaggag ttcaagacta gcctggccaa catgatgaaa ccctgtctct   1800
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gaggctgagg caggagaatc acttgaaccc gggaggcaga ggttgcagtg agccgagacc   1920
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<210> 4378

<211> 2607

<212> DNA

<213> Homo sapiens

<400> 4378

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aacgcggtcg ccatggaccg cccagatgag gggcctccgg ccaagacccg ccgcctgagc    180
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ctgccgctgc ctccacccca gcagcgcccg aggctccagg aggaaacgga ggcggcacag    300
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gcactcccca ctcctgaggc ctcggggggg agctggaaa tcgattttca ggttgtacag    540
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gaggatgagc gggagagtat gaggagcagc aggaggcggc ggcggcggcg gaggaggaag    720
cagaggaagg tgaagaggga aagcagagag agaaatgccg agaggatgga gagcatcctg    780
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tgacaatgag ataactgaca tcaatgagaa catctgcgac agcgagaatc ctgaccacaa    2040

tgaggtcccc aacaacgaga ccactgataa caacgagagt gctgatgacc acgaaaccac    2100

tgacaacaat gagagtgcag atgacaacaa cgagaatcct gaagacaata acaagaacac    2160

tgatgacaac gaagagaacc ctaacaacaa cgagaacact tacggcaaca acttcttcaa    2220

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agatgaggcc agtgatgatg aagataatga tggcaacgaa ggtgacaatg agggcagtga    2340

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ctatgagaaa gttattgaag actttgacaa ggatcaggct gactacgagg acgtgataga    2460

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<210> 4379

<211> 2080

<212> DNA

<213> Homo sapiens

<400> 4379

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ggcgctgggt gctcggctcg aagggcagcg agtccttatg tctgaggggc ccgggtgcat     180

gggttctgag gggcagctgt gtccgtggtc tgaggggcgg cagtgcccga ggtctgaggg     240

gtgtcagtgc gcggggtccg agggacggca cgtccttggg tccgaggggc gggggtgctc     300

ggggtctgag gggtgtcagt gcccgggggtc tgagggacgg cgggtcctga ggttcgaggg     360

gtggcacgtc ctaggatccg aaggacaacg ggtgcccggc tccgagggac ggccactggg     420

acccctggga ctcctgcgtg agggtctgcc agacccgtgg ctggagcaca gacccgcgg      480
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cccagccggt gcctgggcgg gccctcgctc cctcttgccc cagctggcct ttaggggggga    660
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tcccatcaca cacacactct caaagatgag aacaggaaat aaaatccaat cgtaggccag   1980
gcgcagtggc tcacacctgt aatcccagca ctttgggagg ccgaggcagg cagatcacga   2040
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<210> 4380

<211> 2473

<212> DNA

<213> Homo sapiens

<400> 4380

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gccgggaagc tgcccctacc gctacccca cggctggact ggtttgtgca cacccagatg    180

ggccagctgg cccaagacgg ggtccccgag tggttccatg gtgcaatctc aagagacagc   240

cttggaagtg gagtttactc tccccltgag gaagctgaag gtcagaaagg gagagacgat   300

tgcctgaggt cacacagctg atggacagta gagctgggtt atgaactcga atgcatctga   360

gcatacaggg atgctgagaa cttgctggag tcacagccac tgggatcctt tctcatcagg   420

gtcagtcaca gccatgtggg ctacacactc tcctacaagt aaggcctggg ccgggatcca   480

gggcaggggc aggtgggctc ttgggtttcc ttggaggggg caaggggtgc ttcatgtcat   540

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agcaatgagt gaagcttttg tccgtagtgg catgttttat ctgaggccag cctttgtact   660

cctgtgttat aaatggggga aactgaggca cagcgaggtt agtaacctgc tgggtgttgc   720

atggccagtg agtgaagaag cctgcatggg aacctggggt agtctggctg tagcagtgac   780

gctgccggcc caagggctgg ggacttgggg cagggatgag ggggagtagg atgtcccagc   840

ccccgcagtg tctccgcaga gcccaaagca gctgctgcca tttcatggtg aagctcttgg   900

atgatgggac tttcatgatc cccgggagga aggtggccca cacctcgctg gacgccctgg   960

tcaccttcca ccagcagaag ccaattgagc cgcgcaggga gctgctgaca cagccctgca   1020

ggcagaagga tcccgcaaac gtggattacg aggatctctt cctctactcc aacgcagtgg   1080

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gcctcaaaat gctccccgag agaggccaga gggtccggca gcagctaaaa agccacctcg   1320

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acaggagttg gcaccaaatg gtagtgagag ccctatcctc ccaggagtcc aagccagagc   1620

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acccatgggg tgagctggtt attttagcaa caatcatcag agtgacgctg atggtttggg   1920

gcaccagcta tacatcagcc ccagtgccag accttctatt cattattta cgcctcagag    1980

caaggccctc agggagggtc atcctccatg tttgaagaa gagactgagg ttcagagagg     2040

ataagaggcg tgaccaaggc cacagagcta tgggtgtcag caccaggatt tgaagccagg   2100

tgaatccgag cccttttccc atatcatctg tttgttctgt tgtctaaaag cacactgcaa   2160

gccgggctca gtggctcatg cctgtagtcc cagcactctg tggggccgag gcaggcagat   2220
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cgcttgaggt caggagtttg agaccagcct ggccaacatg gtgaaacccc gtctatacta   2280
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cctgaggcgg gagaattgct tgaacccggg aggcagaggt tgcagtgagc cgagatcgca   2400
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taaaaatgaa att                                                      2473
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<210> 4381

<211> 2419

<212> DNA

<213> Homo sapiens

<400> 4381

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cacacctgcc acggtggcag gggggggtacc cggggcagca tcgtggctcc tgaacccaga .  1980

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ctgtgctcat cacaggagcc tcagttgaga gtgagcgggg tacagtaagg cagtgcttcc    2340

cacactggac ctcttcctg gttctctttt gcaatacatt aacagaccct ttatcaacat    2400

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<210> 4382

<211> 2220

<212> DNA

<213> Homo sapiens

<400> 4382

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aaaaaaaaaa aaggtcttct gaattcttct gaattatttt ctaagtagaa gtgggagtga    120

tggctatttt ccaggttagt attggttaga gctcaccaga actgaatttg tcagaaaaat    180

agagggtatc tatgaggctt tgtggcgaga gacaaaaggg aacaaggaaa aaaagatgtt    240

gctggcagcc aggagatata cttgggggag aagaatggaa gtgttactgt attgtatctt    300

gctttttag aaaagtgtga atagaaatct tctgggttta ctaatgtgtt atagagctgg    360

attgggcgt tttgtggcaa ttggagttgc gtagtttacg taacattgag cagaggtgca    420

agatgggaga gacaagagct cagactgccc aacgggtctc agaaaatgta ggttacatcc    480

ataatacatt tgtttgttgt ttttatttga gctactttgt ataggcatct attttcttgc    540

aatcaaataa gctctaacga aaatgatgtg taatgtacaa agtaccttag cagcttcaat    600
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<210> 4384

<211> 2138

<212> DNA

<213> Homo sapiens

<400> 4384

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<210> 4385

<211> 1825

<212> DNA

<213> Homo sapiens

<400> 4385

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<210> 4386

<211> 1981

<212> DNA

<213> Homo sapiens

<400> 4386

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c                                                                     1981
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<210> 4388

<211> 1693

<212> DNA

<213> Homo sapiens

<400> 4388

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<210> 4389

<211> 1650

<212> DNA

<213> Homo sapiens

<400> 4389

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<211> 1520

<212> DNA

<213> Homo sapiens

<400> 4390

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gcctcttagc agacacccta caagccataa gagatttggg gcctatgttc aacatttctt   240

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<211> 5188

<212> DNA

<213> Homo sapiens

<400> 4391

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<211> 3366

<212> DNA

<213> Homo sapiens

<400> 4392

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<212> DNA

<213> Homo sapiens

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<213> Homo sapiens

<400> 4394

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<211> 3485

<212> DNA

<213> Homo sapiens

<400> 4395

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<212> DNA

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<400> 4397

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<211> 3958

<212> DNA

<213> Homo sapiens

<400> 4398

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<211> 1308

<212> DNA

<213> Homo sapiens

<400> 4399

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<210> 4401

<211> 2012

<212> DNA

<213> Homo sapiens

<400> 4401

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<210> 4402

<211> 2542

<212> DNA

<213> Homo sapiens

<400> 4402

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<210> 4403

<211> 2102

<212> DNA

<213> Homo sapiens

<400> 4403

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tgcagagggc cctgtacagg gaagtgatgc tggagaatta tgcaaatgtg gcttccctgg   300
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taatcccagc tactagagag gctgaggcag gagaatcact tgaatccctg aggcagaggt   2040

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<210> 4404

<211> 2142

<212> DNA

<213> Homo sapiens

<400> 4404

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<210> 4405

<211> 2232

<212> DNA

<213> Homo sapiens

<400> 4405

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<210> 4406

<211> 2007

<212> DNA

<213> Homo sapiens

<400> 4406

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tctccccaga ggcaatcact gctactggtt gtgtatctct gtagatactc tttgtataca    1920

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<210> 4407

<211> 2931

<212> DNA

<213> Homo sapiens

<400> 4407

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<210> 4408

<211> 2378

<212> DNA

<213> Homo sapiens

<400> 4408

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<210> 4409

<211> 3070

<212> DNA

<213> Homo sapiens


<400> 4409

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<210> 4410

<211> 3158

<212> DNA

<213> Homo sapiens

<400> 4410

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<211> 3978

<212> DNA

<213> Homo sapiens

<400> 4411

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<210> 4412

<211> 2281

<212> DNA

<213> Homo sapiens

<400> 4412

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<210> 4413

<211> 2230

<212> DNA

<213> Homo sapiens

<400> 4413

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<210> 4414

<211> 2103

<212> DNA

<213> Homo sapiens

<400> 4414

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agcctttccg agtctccccc gagggagagg cggcagagaa aaccccggat ttgggagcca     420

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<210> 4415

<211> 2277

<212> DNA

<213> Homo sapiens

<400> 4415

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<210> 4416

<211> 3384

<212> DNA

<213> Homo sapiens

<400> 4416

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<212> DNA

<213> Homo sapiens

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<211> 2319
<212> DNA
<213> Homo sapiens

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cacacacaca tactttttat gttatttttg gagagaatct tgctctgctg cccaggctgg  180
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gcgcgcgcct gttgtcccag ctactcagga ggctgaggca ggagaatggc atgaacccag  780
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<211> 2500

<212> DNA

<213> Homo sapiens

<400> 4422

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aagataaaat gaaggagaga aagaggcatt tgggagacac aaaacacttt tgtccggtgg    300

tcctcaaaga aaacttcatc ctgcaaccag gaaacacaga agaagcagcc aagtatcgag    360

aaaagatcta ctactttca agtgctgagg ctaaagaaaa gttttggag catcctgagg    420

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<210> 4423

<211> 2311

<212> DNA

<213> Homo sapiens

<400> 4423

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<211> 2976

<212> DNA

<213> Homo sapiens

<400> 4424

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<210> 4425
<211> 2142
<212> DNA
<213> Homo sapiens

<400> 4425

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tgaagatcat tttctacaac tttaggtgta agaggatgta aatggtattg tatgagatca  2100

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<211> 3466

<212> DNA

<213> Homo sapiens

<400> 4426

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<213> Homo sapiens

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<211> 2744

<212> DNA

<213> Homo sapiens

<400> 4428

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<212> DNA

<213> Homo sapiens

<400> 4429

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<400> 4430

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tatatccgtg attgctgatc tacacttgag cactattgac tgggaaggta cttctttttag   1860

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acgaatattt ataaaattat catatcctca ggataatcta caaccagatg tcaacctgaa   2160

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atcacatctt tcaaaggatc ttccaggaat tcccttgcaa aatgaatcca gagactctaa   2280

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ccttgacaga cattcctctg atgaacaaag tgccccagtg tttgggaaag ctaagtacac   2520

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<211> 3105

<212> DNA

<213> Homo sapiens


<400> 4431

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agtgctgaga ttacaggcat gagccaccgc gcccggctat aatctctcat tttctaagct   360

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tataatagaa aaaagtaaaa ctcttcgtct gaaaggatcc atttttagaa atgagtggca   660

gaacaaaagt gagtttgagg gtcaacaggg acttaaagaa agatctatca gtcaaaagaa   720

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aattcacact ggtaaaaaac cctatatgtg taagaaatgt gataagggtt tttttagtag  1140

attagaactt actcaacata aaagaattca tactggtaag aaatcttatg aatgtaaaga  1200
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gtctacagtg caaaagaggg ccttcaccag aacccaagca tgctggcacc ttgaccttgg   3060

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<211> 2069

<212> DNA

<213> Homo sapiens

<400> 4432

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agctgggatt acaggaatgt gccaccatgc tgggctaatt tttttttgta tttttagtag     180

agatggggtt tctccatgtt ggtcgggctg gtctcgaact cctgacctca ggtgatctgc     240

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caggctggtc tcgaactcct gggctcaaat aatacccccc ttcggcctcc caaagtgttg     420

agattacaga tgcgagccgc tgtgccccac cagggaataa aattttttaa aaccctagtg     480

ccatatgatg aaggggcccc tgcttttgag ggaagggctc ctgccttttc tcacgcttct     540

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gccagccagg accccttata catcaacatc gagagagctg aggagcccac tgcgggaggc     720

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aaaaaaaaaa aaaaaaaaaa aaaaaaacc                                      2069
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<210> 4433

<211> 4742

<212> DNA

<213> Homo sapiens

<400> 4433

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acccgccggc ggctgacctg cgccaaatgc gttcagagcg gcgatttcgt ctacttcgac     240

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caagaagaat ttcagaaaga agtgttaaaa gctatggaag gaaaatggat aacagatcag     360

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cagaagcttt acagtcgagc acaacggcac caagagaaaa aggagaagat tcagaggcat     540

aatcgcaaac ttggtgacct ggtagaaaaa aagaccattg acttaagaag tcattatgag     600

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<211> 4144

<212> DNA

<213> Homo sapiens

<400> 4434

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<210> 4438

<211> 2642

<212> DNA

<213> Homo sapiens

<400> 4438

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aagacaggtc actgaaaaaa atccaatctg agcaaaaaga aaaagaatg aaaaggatag     180

tttaaagata gtttatgaga cctgtgggac accatcaagt ggacaacaaa tgcattattg    240

atatgtcaga aaaagaagaa ataaaatata ttcaaagaaa ttatgtcaga aaacttccca    300

agccttatgt cagaaaactt cccaagcctg gggaaggaga tagaaagcca aatccaggaa    360

gcccaaagaa caccaaataa gatgaacccg aaaagatcca caccaaagca agttataatc    420

aaattctaag ttagagagag ttgaaaacag caagggaaaa gtgaattgtc atatgtaagg    480

gaaccaccct aaggccagca gtggatttca cagcagaaac cttacagatc agaagagagt    540

aggatgatac attcaaaacc ctgaaaggaa aaaaaaaaaa aaaaaaaaac actgccagca    600

aagcatacta tacccagcaa tcctgtcttt caaaaaacaa agggatgatc aagactttct    660

caaataaaaa cagaatttat ccccactaga ccagccttac aagaaatgct aaagggaatt    720

cggaagagaa cgttaatcag caacgtgaaa acatgaaagt ataaaactca ctgaaagagg    780
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gttgaagagg agggaattct tcaaaattta ttttatgagg ccagcagtac cttgatacca  1140

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gcataaaaac agacaagtct accaatgaaa taggacagag agcccagaaa taaacccatg  2340

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ctataaaact gctagaggtc tggacagaga tttctttgat atgaacccaa aagcataggc  2580

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<212> DNA

<213> Homo sapiens

<400> 4439

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ggccaaagca taaggaaact caccatgaga ctcattttcc ttaaattttg aacttgtaca  1980

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<210> 4440

<211> 3259

<212> DNA

<213> Homo sapiens

<400> 4440

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<210> 4441

<211> 2884

<212> DNA

<213> Homo sapiens

<400> 4441

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ccacaaagat actccaagaa gagcaacccc aagacacata attgtcagat tcaccaaggt     240

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cacagaaata caaactacca tcagagaata ctataaacac ctctacacaa ataaactaga 1920

aaatctagaa gaaatgtata aattcctggg cacataaacc ctcccaagac taaaccagga 1980

agaagctgaa tctctgaata gatcaatatc aggttctgaa attgaggcaa taaataatag 2040

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<211> 2102

<212> DNA

<213> Homo sapiens

<400> 4442

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<210> 4453

<211> 2954

<212> DNA

<213> Homo sapiens

<400> 4453

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caggatggga gggaggaaca taccaactca ctactcaagg gaagagaact gtgaaagaat    180
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gcaaatcagc tttataggtt tattacaagt ttttttagga ttctttttggg gaagagtcat   1920

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<210> 4454

<211> 3023

<212> DNA

<213> Homo sapiens

<400> 4454

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<210> 4455

<211> 2360

<212> DNA

<213> Homo sapiens

<400> 4455

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cagcctttgg tccggctcgt gtccctgggg attctcggat ctccgaggac accggacggg   180
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<210> 4456

<211> 3419

<212> DNA

<213> Homo sapiens

<400> 4456

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```

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ggattgaaat ctcctaagag cagtgataaa cagagaccac tgcagccatg agacagactt   660

gtggttcttc aacagctgtg cagagcagag acgtaaattt aaggaattgc ttccagaaac   720

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<400> 4462

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<400> 4463

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<212> DNA

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<400> 4464

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<212> DNA

<213> Homo sapiens

<400> 4465

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<210> 4466

<211> 2938

<212> DNA

<213> Homo sapiens

<400> 4466

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caccagccac tcgcccatca cgtgtaacag tacgtgctcc tcctgctgag cctcggggac   180
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cacaccctga gaggccggct gagggatgtg ctctgcaccc ctgctcacag actccttcag   360
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<210> 4467

<211> 2988

<212> DNA

<213> Homo sapiens

<400> 4467

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<210> 4468

<211> 4303

<212> DNA

<213> Homo sapiens

<400> 4468

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<210> 4469

<211> 3950

<212> DNA

<213> Homo sapiens

<400> 4469

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aacaaagaca caacatacca gaatctctgg gacgcattca aagcagtgtg tacagggaaa   3900
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<210> 4470

<211> 3362

<212> DNA

<213> Homo sapiens

<400> 4470

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<210> 4471

<211> 3188

<212> DNA

<213> Homo sapiens

<400> 4471

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ttcacatcag tgtttgaagt tcaaaccaag gaaaactatc agaaaaggct tctgctttct   180

ttaaaaaata aaactacttg aaaagaaaaa aatcaagaat tagaaagaag agtataacaa   240

taaagaagga ggggtcacag gtgaacgaga tgtggtcaac acacacaaag gagaacaaaa   300

agtggaaaaa tgctaatcac tgaaagaaaa cattttcggt caggaagaat tgcacaaagt   360

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acagaatgcc aggacccaga cttgcttcac aattggccgg atgctttcac ccttcgtggt   480

aataatgctt ccaaagttgc aaatccattc tggaatcaac tgtctgcttc taacccattt   540

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gaagatcctt ttctttctct tagagaaata gaaaatggaa actcttttga ttcctccggt   660

gatgaacttg atgtgcatca gttacttagg cagacttcct caagaaattc tggaagatct   720

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ccaggctatt tgcagaagaa ggaggaaatc aagtctgctc ctttatcacc aaaaattctt   1920

gttaaatatc ctacatttca agataaaaca ttgaacttta gcaactatgg ggtaaccctg   1980

aaggcagtgc taagacaaag caagattgat tacttccttg aatatttcaa aggggacaca   2040

atagctctcc tcggggaagg taaggtaaaa gctattggtc agtccaaagt gaaagaatgg   2100

tatgtaggag tcctcagagg taagattgga cttgtacact gcaaaaatgt caaggtgatt   2160

tcaaaggagc aagtaatgtt tatgtcagat agtgtcttta caaccagaaa tcttcttgaa   2220

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<210> 4472

<211> 4225

<212> DNA

<213> Homo sapiens

<400> 4472

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aaccagaggg agagattatg gctgctgtgt ttttctcagt tggacgcctg agccctgaag    180

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cggtgacatt taaggatgtg gctatagact tcacattgga ggagtggagg ttgatggacc    300

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tggggcttgc agtttccaaa ccagacatga tatctcattt ggagaatggg aaaggaccat    420

gggtgacagt gagagaaatt tcaagaattc cctatcctga catggagccc aaacctgcaa    480

ccaagaatgc tacacgaaca aaggctattt ctgaagattt atcacaggag gccatactag    540

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ataggatatt gagattacaa aataatcagg agaatcattt gagtcaaaga ataattccac    660

tcaagaagac tcccactagt caaagaggct ttagatttga atctattctt attccagaac    720

caggcattgc cacagaagag cttcacagca gatgccaaac acaagaggaa aatttcacag    780

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<213> Homo sapiens

<400> 4473

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<211> 2635

<212> DNA

<213> Homo sapiens

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<212> DNA

<213> Homo sapiens

<400> 4475

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<212> DNA

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<212> DNA

<213> Homo sapiens

<400> 4483

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<210> 4486

<211> 2475

<212> DNA

<213> Homo sapiens

<400> 4486

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<210> 4487

<211> 2321

<212> DNA

<213> Homo sapiens

<400> 4487

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<210> 4488

<211> 2495

<212> DNA

<213> Homo sapiens

<400> 4488

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<211> 2725
<212> DNA
<213> Homo sapiens

<400> 4489
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<210> 4490

<211> 2136

<212> DNA

<213> Homo sapiens

<400> 4490

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gtcagtgcca aagtagtgac agaagaaatc ttgagaggaa gcatttttgt cttgtacttg   180

aaacagctgc tgggcccacc atggctcctg tgaagatcag ccatgtggta tcattttctt   240

ctcaggatcc caagtatcct gtagagaact tgctaaaccc agatagtcca aggagacctt   300

ggctcggctg ccctcaggac aagagtgggc aattgaaagt agaactacag ctggagaggg   360

cagtgcccac tggctacatt gatgtgggta actgtggctg tgcgttcctg caaattgatg   420

tgggccattc ttcctggccc ctggacagac ctttcataac cctgctccct gcaaccacgc   480

taatgtctct aactgattca aagcagggga agaaccgctc cggggtccgc atgtttaaag   540

atggtaaaga gggcaaaagc agaaaagatg ggggtggtct ttatgagaaa cagagatgca   600

gtactaaaga ggactgtgag tgctattagg tgtagactgt ggggggggagc ctgtgcaggg   660

gtttaattat atctgttggg ggcaaagggt ggttaaggaa tggtgtgctt gtgtgtgaga   720

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atatttttgt ggccaggcgt ggtggctcat gcctgtaatc ccagcacttt gggagactgg   900

gacaagtgga tcatctgagg tcaggagttc gagaccagcc tggccagcat ggtgaaatcc   960

catctctact aaaaatacaa aaattagccg ggcatggtgg tgagtgcctt taatcccagc  1020

tactggggag gctgaggcgg cagaattgct tgaacctggg aggcagaggt tacaatgagc  1080

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ttatgtaagt gatggaaggc tacatagtgg ttatagttgt gtagcatata atgtttactg  1260

aatttataca aatctctgtt cactaggcac tacagaaaaa cataagatct gattcctagc  1320

ctctagggat gtacagtctc ataaggattt gtctgtttta agttggaagt atttgtaatg  1380
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atgtagagca cgtggtggtg tgagggaggt tgaggtctta tgatccagga agggccaata   1560
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gaagcgccac cctagcaata tcaaccatta accttccctc tacacttatc atcttcacaa   2040
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<210> 4491

<211> 1907

<212> DNA

<213> Homo sapiens

<400> 4491

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agaggaagtg ccaggtatca ttatgatgga atctgtatca agaaaagctc tttcttctat    300
gcccagtatt gctgcctgat aggtgaaaaa aggtatcaca gtggagatgc cattgccttt    360
gaaaaatcta ctaattataa cagcattatc caacaagaag caacatgtga agatcattca    420
ccgatgaaga cagacccagt tggatcccct ttgtctgaat tcaggagatg tccatttctg    480
gagcaagaac tggcaaagaa atactcctgt aatatgatgg ccttccttgc tgacgaatac    540
tgcaactatt gtcgagacat tttacgaaat gtgaggaact gagaacttga gagggtggag    600
gacttgctta cttccttctg gaagtctctg cagcaagaca cagtcatgct gatgtcattg    660
cctgacgtgt gccagctctt taaatgctac gacgtccagc tgtacaaggg aattgaggat    720
gttctccttc atgacttctt ggaagatgtt tctattcagt acctgaaatc tgtgcagtta    780
tttagtaaga aatttaagct gtggctcctt aatgctttgg aaggtgttcc agccctcttg    840
cagatctcca aactcaaaga ctatgcgaat ggtattgaaa agtaagaggc gtgtcagcgt    900
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cctggcaagt gaccggagtg gcgcagatga actggagaac aacccagaga tgaaatgttt   1020

aagaaactta atttctttgc tgggaacatc aacagatctc agggtattcc tcagctgtct   1080

gtcttcacat ctccaagcat ttgtgttcca gacaagcaga agcaaagaag agtttaccaa   1140

attggccgcc agcttccagc tgagatggaa tcttcttctc actgctgtaa gcaaagccat   1200

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gactgtcaag gaaatgctac cagatgaccc gactctcggc cagccagacc aggcactttt   1380

ccattctctg aattcctcac tgtcgcaggc gtgtgccagc cccagcatgg agccactggg   1440

ggtgatgccc acacacatgg gccagggccg atatcccgtg ggcgtgagca acatggtcct   1500

caggatcctg ggcttcctgg tggacactgc cacgggcaat aagctcatcc aggtgctgtt   1560

ggaagatgaa accactgaaa gcgcagttaa actcagcctt cctatgggac aagaagccct   1620

cataacccta aaagatggac aacaatttgt gattcagata tcagatgtac cccaaagctc   1680

tgaagatatt tatttcagag aaaacaatgc taatgtgtga gattatttat ttgaatagag   1740

aataagaaaa ctgatagact tgcattctta aaaatattaa atactaaagt ttttctattg   1800

acgaaagatg atgttatgta tataatagat gtagcattgt ctattttatg tttatatgta   1860

tttcaaggag gtggtttcga taaaatatgt aaactgattt ggagaat                  1907
```


<210> 4492

<211> 2605

<212> DNA

<213> Homo sapiens

<400> 4492

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tgccagggat ccacaggtgc cgcctccgga ggaagaatcg ggggactgcg cccggtccct    180

ggaggcggtc cccaagaaac tctgtgggta tttaagtaag ttcggcggca aagggcccat    240

ccggggctgg aaatcccgct ggttcttcta cgacgaaagg aaatgtcagc tgtattactc    300

gcggaccgct caggatgcca atcccttgga cagcgtcgac ctctccagtg cagtgtttga    360

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cctgaaggcc gccaccaagc aagcgatgct gtactggctg cagcagctgc agatgaagcg    480

ctgggaattc cacaacagcc cgccggcacc tcctgccacc cctgatgccg ccctggctgg    540

gaatgggccc gtcctgcacc tcgagctagg gcaagaagag gcagagctgg aggagttcct    600

gtgccctgtg aaaacacccc ctgggctagt gggcgtggca gctgccttgc agcccttccc    660
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tgcccttcag aatatttccc tcaagcacct ggggactgaa atacagaaca caatgcacaa    720

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acagagtggg gagcctcaga gggaggagca gcccttggcc tctgacgcca gcaccccagg    840

gagagagcca gaggattctc caaagcctgc acccaagcct tctctgacca tcagtttcgc    900

tcagaaagcc aagcgccaga acaacacctt cccattcttt tctgaaggaa tcacacggaa    960

ccgaactgcc caggagaaag tggcagcctt ggagcaacag gttctgatgc tcaccaagga   1020

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ggaagcttac cggacccaga actgcttcct caactccgag atccaccagg tcacaaagat   1500

ctggagaaag gtggctgaga aggagaaggc ccttctgacg aagtgcgcct acctccaagc   1560

cagaaactgc caggtggaaa gcaagtacct ggccggtctg agaaggctgc aggaggccct   1620

gggggacgaa gccagcgagt gctcagagct gctgaggcag cttgtccagg aggcactgca   1680

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ccgtgtccag cacctgcaca ctccaggctg ctaccaggaa ctgctgagcc ggggccaggc   2040

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caaacacttc acctgcggga gctggagcag cttaaggcag agtacctggg gaggcgggca   2160

tcccggcgca gagctgtgtc cgagggctgt gccagcgagg acgaggtgga gggggaagcc   2220

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<210> 4493

<211> 3367

<212> DNA

<213> Homo sapiens

<400> 4493

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cctggggagt tggaattcag aaggaatctc tcagacgcaa atctccatct cctccctgcc     180

tcacctgggc agccttttca gactgtctct gcccagaatg tcaggagagg ccacagtctt     240

ggcctaccat gctccagaag aacaggaagg acttctagtt gtcaaggttg aagaagaaaa     300

ttatgttttg gaccaggact ttggccttca ggaaaacccc tggagccaag aggtattccg     360

gcagaagttc aggcagttta gttactctga ctccactggc cctcgggagg ctctgagccg     420

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ggagctgctg atgttggagc agttcctggc catccttcct gaggagctgc aagcttggct     540

gcgagagcat cggccagaga atggagagga agctgtgact atgctggagg agctggaaaa     600

agaactggag gagccaaggc aacaggacac aactcatggc caagaaatgt tctggcagga     660

aatgacatcc acaggagcac tgaagtctct gtctctgaat agcccggtgc agcccttaga     720

gaaccagtgc aagactgaga ctcaggagtc ccaggctttc caggagagag atggggtctc     780

actctgtcac ccaggttgga gtgcagtggt gcaaccacag ctcactgcag tagccttgaa     840

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tcaggtatac cagcttgttc tcattaatct tttgttaaat ctgactaccc ttctgatttt    1740

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tatgatgata aaattaggta tatgaggacc taagcccaaa ggccagaccc tggacttcgg    1980

cagttcacca aaggaatcca taccatccat ccactgaatt cttctgggaa actgcttccc    2040

aaccttcccc aggcatcata ccctgatact accattagcc aagcaggccc tcttaagtat    2100

cttctgcacc aagcaggtgc tacattaaaa cgggttttga aaattcatct caaggaaatc    2160

aagctgtctc tatttgcaga taatatgatc ccatgtctag aaaaccctat cgtctcagcc    2220

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cctgaacaac aatagacaac cagagagcca aacatgatta actcccattc acaattgcta    2400

caaagagaat aaaataccta ggaatacagc taacaaggga ggtgaagggc ctcttcaagg    2460

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catctgacaa aggtctaata tccaggatct acaagaaact taaacaaatt tacaagaaaa    3300

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<210> 4494

<211> 3462

<212> DNA

<213> Homo sapiens

<400> 4494

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agcatagctg aagtgaggtg tctgggttag acaatggcta tggccctgga attgcaagcc    180

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catgaggatg aagaccagat ttcagagcag gacatttttg agggtttgcc tggagcctta   2100

tcaaaatgtc ctacagaaagc tgtttgccaa cctcttgact ggggagaaga cagtgaaaat   2160

gaaaatgaag atgaagggca gtggggaaat ccctcacagg aacagtggca agaaagttct   2220

tctgaagagg acttagaaaa acttattgac catcaaggcc tgtaccttgc ggagaaaccc   2280
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tttccaattt ttaagcttgg tgtgtaccca gggaagttat cttggtataa accaggtaat   3420

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<210> 4495

<211> 1492

<212> DNA

<213> Homo sapiens

<400> 4495

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cccaaatcac ctctgagagc agcagctttt ctgaaggaag cctcccctca tggtcctcag   240


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acggggacag caaggcggcc acagagaggg tggtctcagc catggacaca gtacggcgga   360

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<210> 4496

<211> 2519

<212> DNA

<213> Homo sapiens

<400> 4496

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gccagctgat aagaggatca ctcattagga aaccaagaac tcaagggatt gggtcagccc    180

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cagtggcgga gccaagccgg cccacctggc tctctgtgag ccccctgccc cacactgccc    300

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<210> 4497

<211> 3059

<212> DNA

<213> Homo sapiens

<400> 4497

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ctcagttatt tcctgatttc tcccccaaag agcttcagaa tgtctgctaa tggcaccctc   600

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ccatcactga gacgggcacc atgggcagca agctggtggg catcgtcacc tcccgagaca    540
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<210> 4499

<211> 2010

<212> DNA

<213> Homo sapiens

<400> 4499

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cctgataccc aaacctggca gagacacaac                                   2010
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<210> 4500

<211> 1996

<212> DNA

<213> Homo sapiens

<400> 4500

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gtcttcagaa cttgctcagg cctttctaac cataagagaa ctcattctga agaaaaaccc   1560

tacacgtgtg aagaatgtgg caacatcttt aagcagttat cagacctcac taagcataag   1620

aaaacccata ctggagagaa gccctacaaa tgtgacgaat gtggaaaaaa ctttacccag   1680
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tcctccaacc ttattgtaca taagagaatt catactggag agaaaccccta caagtgtgaa  1740
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attgtacata agagaattca tactggagag aaaccctaca agtgtgaaaa gtgtggcaaa  1920
gccttcaccc agttctcaca cctgactgta catgaaagca ttcatacttg agaaaaaaat  1980
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<210> 4501

<211> 1809

<212> DNA

<213> Homo sapiens

<400> 4501

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```

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<210> 4502

<211> 2410

<212> DNA

<213> Homo sapiens

<400> 4502

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<210> 4503

<211> 1582

<212> DNA

<213> Homo sapiens

<400> 4503

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caagcgagta gagaagtgga gctaatggca atgcagatgc agcttgaagc aaatgcagat   180
acttcagtgg aagaagaaag ctttggccca caacccattt cacggttaga gcagtgtggc   240
ataaatgcca acgatgtgaa gaaattggaa gaagctggat tccatactgt ggaggctgtt   300
```

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gcctatgcgc caaagaagga gctaataaat attaagggaa ttagtgaagc caaagctgat    360

aaaattctga cggagtctcg ctctgttgcc aggctggagt gcaatagcgt gatcttggtc    420

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tgcaaaatct acgactctcc ctgtcttcct gaagctgaag ctatgttcgc cattaatgca   1140

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gtgactgcca ggataaagct tccgggaaaa cagctattat atcagctttt ctgatggtat   1320

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<210> 4504

<211> 2615

<212> DNA

<213> Homo sapiens

<400> 4504

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ttcaccggcc aggggatcgc caggttggga agaattcaga aaaaaagcca accggagaag    240

gtggtaagag cagccagccg tgggagacct ttgattgggt ggacacagtg gtgtgctgag    300

gatggtggtg atgagtctga aatggctctg gcagggtctc ccgggtgctc gtctggaccc    360
```

```
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gtgtccagcc aagaaagcaa tgcccaggca aatgtgggca gccaggagcc agcagacaga    540

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```

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<210> 4505

<211> 1713

<212> DNA

<213> Homo sapiens

<400> 4505

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```

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<210>  4506

<211>  2505

<212>  DNA

<213>  Homo sapiens


<400>  4506

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<210> 4507

<211> 2216

<212> DNA

<213> Homo sapiens

<400> 4507

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ggggcacaga gatatattat atataaagtc ttgaaatttg gtgtgtcttg gggtggggag   2040

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<210> 4508

<211> 3103

<212> DNA

<213> Homo sapiens

<400> 4508

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<210> 4509

<211> 3613

<212> DNA

<213> Homo sapiens


<400> 4509

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<210> 4510

<211> 3620

<212> DNA

<213> Homo sapiens

<400> 4510

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<211> 2349

<212> DNA

<213> Homo sapiens

<400> 4511

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<210> 4512

<211> 2261

<212> DNA

<213> Homo sapiens

<400> 4512

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tgcgggcctc tttcaggccg ctcctagtgg acgcagaggc gggccgagga cggtcacagg   180
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tgcggcaagg ccttcgcctg gagctccaac ctcagccagc accagcgcat ccacagcggc    660

gagaagccct acgcttgcag ggagtgcggc aaggccttcc gcgcgcaatc gcagctcatc    720

caccaccagg agacacacag cggcctgaag cccttccgct gcccggactg cggcaagtcc    780

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gcggcaggct ccacttcggc gagaggttcg tccatgcaga ggtgggcaag aactggggtc   1980

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ccccagtcca catggtcacc actgctgcta ccagctgctc agtgcagtgg ccactgtgtc   2100

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<210> 4513
<211> 2986
<212> DNA

<213> Homo sapiens

<400> 4513

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tccgcgtctc cagggccctg gccaggccca acaacctctc cctcctctgt gcgcctcagc   180
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caaggccttt tccatggatg agccggttgc agctaagagg ccggtgtcac catacagcgg    2340

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<210> 4514

<211> 2533

<212> DNA

<213> Homo sapiens

<400> 4514

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aagcaaaaat attgcctata attgttgttg gaccagtgc caggcttgct tcaactctag      300

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caatgccagc tttgcttctc agggagggct agctcgtcat gtacccacac acttcagtca     540

gcagaactcc tcaaaagttt ctagccagcc aaaggccaaa gaagaatctc cttctaaagc     600
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cattgtaaag tatgtggtta tatgcagtga aactgcagaa aatactcctg gttgaggagt  1920

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tattagacaa aaatatagaa ttaaaacctt tggttccaaa atgggaaagg ttccacgata  2040

cataaatcat ttcgcatttg cttttaaaaaa tttaaaagtg taaaaattat gagagacttt  2100

attcgttaac aatgggggta aagagctata tacatgaaaa tgagtcttat aaaattaagt  2160

gaagtgcaaa taaaagcact gctactataa gacattctgg aatggttgtt taataagggt  2220

attatccatt tgatctatag caatgtgatt ttatttttaa aaagaaaagc agtgtgtttt  2280

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agaagtgttt cagatacata gtttgtacct gtattttttat tttattgcct catgttcttg   2460

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<210> 4515

<211> 2678

<212> DNA

<213> Homo sapiens

<400> 4515

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agcctcttct ggcagtcttc aggccacctt tacatgaccc aagaaggcaa atgtttaact 2040

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gaagactggg gtcatgtctg tagaggaatt ctgaagtcca gcctttagag aacaacattc 2520

aagagggtca tatagactat aaattaatgt catgccctat atgtaattct gggtcttaaa 2580

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<210> 4516

<211> 3176

<212> DNA

<213> Homo sapiens

<400> 4516

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<212> DNA

<213> Homo sapiens

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<400> 4524

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<212> DNA

<213> Homo sapiens

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<212> DNA

<213> Homo sapiens

<400> 4527

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<211> 2253

<212> DNA

<213> Homo sapiens

<400> 4532

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<210> 4533

<211> 3084

<212> DNA

<213> Homo sapiens

<400> 4533

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gagaaggggt cggtgggcgc agttccttct ggcaccagtc ccggaggagt cgcgaccacg  240

gcggctgcag ggagcaggca cagccccgca ggatcccaag ccctgcagac taccgcagcc  300

agcgagctaa tgtctcagaa aaaatttgaa gaaatcaaga aagctaacca agctgcagcc  360

agaaaacttg ttgaagaaca gtttagctct tcatctgaag aaggagatga agatttgaa  420

ggaaaacagg gaaaaatact tgcaaatacg tttataacat acactactca gacagatgga  480

gatacacgtg aattagagcg aacaaaacaa tatgtaaatg aagctttca agcagggct  540
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<210> 4534

<211> 3792

<212> DNA

<213> Homo sapiens

<400> 4534

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<210> 4535

<211> 4580

<212> DNA

<213> Homo sapiens

<400> 4535

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<211> 3063

<212> DNA

<213> Homo sapiens

<400> 4536

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ttggctctct gtcatcaccg ggacgctggc agggagtgtg tgtcatggtt acaatagagt  360

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gcctacttcc caaactggct atttcaacag agggagagca agatgaagct gcctcctgcc   2820

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<211> 3571

<212> DNA

<213> Homo sapiens
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<400> 4537

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caaaaacagg aggtacacat gagagaaaag tctttccaat gtaatgagag tggcaaagcc    180

tttaattata gctcactctt aaggaaacat caaataatcc atttaggaga gaaacaatat    240

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gcaaaccttg cacgtcatca tagacttcat agtggagaga acccctacaa gtgtactgag    840

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<211> 4066

<212> DNA

<213> Homo sapiens

<400> 4538

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<212> DNA
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<210> 4540

<211> 3858

<212> DNA

<213> Homo sapiens

<400> 4540

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<211> 1824

<212> DNA

<213> Homo sapiens

<400> 4541

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<211> 3300

<212> DNA

<213> Homo sapiens

<400> 4542

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<211> 5075

<212> DNA

<213> Homo sapiens

<400> 4543

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<213> Homo sapiens

<400> 4544

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<212> DNA

<213> Homo sapiens

<400> 4545

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<211> 2216

<212> DNA

<213> Homo sapiens

<400> 4552

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<400> 4553

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<212> DNA

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<211> 2321

<212> DNA

<213> Homo sapiens

<400> 4557

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<211> 2297

<212> DNA

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<212> DNA

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<400> 4559

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<212> DNA

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gcagcatgaa aacggactaa tacagtaaat tggtaccagg agtgggatgt tctgaaaaga   180

tacctgaaaa tgtggaaacg actttggaac tgggtaatag gcagaggttg gaacagtttt   240

gagggctcag aaaaagacag gaaaatgtgg aaaagcttgg aactttctag agacttgttg   300
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ctcaagctct ctctctttgc ctgctgccat ccatgtaaga tgtgacttgc tcctccttgc  1920

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<210> 4563

<211> 2109

<212> DNA

<213> Homo sapiens

<400> 4563

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<210> 4564

<211> 1783

<212> DNA

<213> Homo sapiens

<400> 4564

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<210> 4565

<211> 1687

<212> DNA

<213> Homo sapiens

<400> 4565

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<210> 4566

<211> 3686

<212> DNA

<213> Homo sapiens

<400> 4566

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<210> 4567

<211> 3089

<212> DNA

<213> Homo sapiens

<400> 4567

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<212> DNA

<213> Homo sapiens

<400> 4572

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<211> 2536

<212> DNA

<213> Homo sapiens

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<210> 4577

<211> 5266

<212> DNA

<213> Homo sapiens

<400> 4577

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<211> 2513

<212> DNA

<213> Homo sapiens

<400> 4578

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<211> 2214

<212> DNA

<213> Homo sapiens

<400> 4579

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<211> 2309

<212> DNA

<213> Homo sapiens

<400> 4580

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<210> 4581

<211> 1848

<212> DNA

<213> Homo sapiens

<400> 4581

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ccccatcctg gaaattcttc tgagaagaga agagaagtta aaaaagagtc agtgggaaca    720
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<210> 4583

<211> 3010

<212> DNA

<213> Homo sapiens

<400> 4583

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<210> 4584

<211> 1827

<212> DNA

<213> Homo sapiens

<400> 4584

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<210> 4585

<211> 1919

<212> DNA

<213> Homo sapiens

<400> 4585

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<210> 4586

<211> 2184

<212> DNA

<213> Homo sapiens

<400> 4586

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<210> 4587

<211> 1946

<212> DNA

<213> Homo sapiens

<400> 4587

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<211> 3538

<212> DNA

<213> Homo sapiens

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<211> 2079

<212> DNA

<213> Homo sapiens

<400> 4589

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<211> 1611

<212> DNA

<213> Homo sapiens

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<210> 4591

<211> 5325

<212> DNA

<213> Homo sapiens

<400> 4591

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<211> 3623

<212> DNA

<213> Homo sapiens

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<212> DNA

<213> Homo sapiens

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<213> Homo sapiens

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<212> DNA

<213> Homo sapiens
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<212> DNA

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<212> DNA

<213> Homo sapiens

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<210> 4615

<211> 3023

<212> DNA

<213> Homo sapiens

<400> 4615

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gccccgactc agacacgcag tttgtatctg tcggggtcaa acatatgaag ttctggaccc      240

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tgcagacgat gctctccgtg gccttcggtg ctaacaatct cactttcacg ggtgccatca      360

atggagatgt ctacgtctgg aaggaccact tcctcatccg gctggtggcc aaggctcaca      420

caggccccgt gttcacaatg tacacaaccc ttcgggatgg actcatagt accggcggaa       480

aagagcggcc gaccaaagaa ggaggtgctg taaaattgtg ggaccaggag atgaagcgct      540

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atgctgcttc taacatcctg attgatggtc acatggaagg ggagatctgg ggcctggcca      720

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<210> 4616

<211> 3313

<212> DNA

<213> Homo sapiens

<400> 4616

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cttctgattc ttttgaaagc tttaaagaca ttgggcatga aaggttcagt gagtttccgg  180
ggatccctcg tttgtggtag agccaggagg aaaacagttc cgttcattct ttcacagctg  240
aggctttaca gttctctata ctctcccaag agccacagaa aatgaacaca tttcaggcat  300
cagtgtcatt ccaggacgtg actgtggaat tcagccagga ggagtggcag cacatgggcc  360
```

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ggttattaga gaaagagaaa ggatttctaa gcaggaactc cccagaagac tcccaacctg    540

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ccaataaatt attgactaca gagcaagaaa tttcaggaaa accacataat cgagacataa    660

acatttttcg tgcaagaatg atgccttgta aatgtgacat tgcggggtct gcttgccagg    720

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tcgcttatag taaaattgtg aaaaccctcc atcataagga ggaagttatt caacatcaga    900

caattcagac tctggggcaa gattttgaat ataatgaaag tagaaaagct tttcttgaaa    960

aggctgccct tgttacatct aacagtaccc acccaaaagg aaaatcttac aatttcaata   1020

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agaagagtca ctatgagttt aatgatactg gaaattgttt ctgtagaatc actcacaaaa   1140

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<210> 4617

<211> 2774

<212> DNA

<213> Homo sapiens

<400> 4617

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gcagtttttc ccacattcga ggactgtcat ccctatactc gtcctgtcgg agacctacag   240

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caaaaaacat gccaacaaag tgaagagata cctagcaatc catggaatgg agacattaaa   420

gggggaaacg aagaagctag actcagatca gaagagcagc agaagcaaag acaagaacca   480

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gcaccagaat agagagatga tagacccaga caagttctgc agcctctgcc atgcaacttt   660

caacgaccct gtcatggctc aacaacatta tgtgggcaag aaacacagaa aacaggagac   720

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<210> 4618

<211> 3850

<212> DNA

<213> Homo sapiens

<400> 4618

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aacaaaatgt acgggaagca atacaatcaa acaaaagact ttcagcttta aataaaaaac   660

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agtccaaagt cacatgtcaa tataagatgg gagaagaaaa catcaatcta acaattaaag   780

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ttaagcaaaa ccctctcctt agataaagaa gtaattagtc aaggacaaac ctcgaatgtt  1560

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aaagcagatt tggactcgtc tctagatata aaaaaaaatc ctgttccatg tcagaaatat  1980

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<212> DNA

<213> Homo sapiens

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<211> 3203

<212> DNA

<213> Homo sapiens

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<211> 2881

<212> DNA

<213> Homo sapiens

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<211> 3133

<212> DNA

<213> Homo sapiens

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<211> 4498

<212> DNA

<213> Homo sapiens

<400> 4624

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<213> Homo sapiens

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<212> DNA

<213> Homo sapiens

<400> 4626

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<210> 4627

<211> 3455

<212> DNA

<213> Homo sapiens

<400> 4627

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agccttcagt atgtaaaaaa cccaagaaca caatatccgt gaagcacagt gaagtgaggt   180
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gcgctgttga agttgatggt gttcactgta catttcataa ccacagttag aattctatac    240

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<210> 4628

<211> 3210

<212> DNA

<213> Homo sapiens

<400> 4628

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<210> 4629

<211> 4120

<212> DNA

<213> Homo sapiens

<400> 4629

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<212> DNA

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aagcgaaagc tgggccgcca cgtgcgggcg ctggtgcttg agctgtgctg taacgacgag   1740
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ggcttctggc agtggcccaa ctagccaagt ctggtgttcc ctcatcatcc ccctacctga   1920
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actccc                                                                1986
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<210> 4634
<211> 2098
<212> DNA
<213> Homo sapiens

<400> 4634
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gtctcagatc cttggaccca gccctgaccc cagtccagct aagctcaacc ctgaccggtc    180
ctccttcgag actctttcag cctaagatct ccaaccagac ctgcccgcca tgtcggctgc    240
gcccggcctc ctgcaccagg agctgtcctg cccgctgtgc ctgcagctgt tcgacgcgcc    300
cgtgacagcc gagtgcggcc acagtttctg ccgcgcctgc ctaggccgcg tggccgggga    360
gccggcggcg gatggcaccg ttctctgccc ctgctgccag gcccccacgc ggccgcaggc    420
actcagcacc aacctgcagc tggcgcgcct ggtggagggg ctggcccagg tgccgcaggg    480
ccactgcgag gagcacctgg acccgctgag catctactgc gagcaggacc gcgcgctggt    540
```

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gtgcggagtg tgcgcctcac tcggctcgca ccgcggtcat cgcctcctgc ctgccgccga   600

ggcccacgca cgcctcaaga cacagctgcc acagcagaaa ctgcagctgc aggaggcatg   660

catgcgtaag gagaagagtg tggctgtgct ggagcatcag ctggtggagg tggaggagac   720

agtgcgtcag ttccggggggg ccgtgggggga gcagctgggc aagatgcggg tgttcctggc   780

tgcactggag ggctccttgg actgcgaggc agagcgtgta cggggtgagg caggggtcgc   840

cttgcgccgg gagctgggga gcctgaactc ttacctggag cagctgcggc agatggagaa   900

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gatgccagcg ctggaggagc tgacctttga cccgagctct gcgcacccga gcctggtggt   1140

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gctgcgcgag ggcaagatcc tggaggcaca cgtggaggcc aaggagccgc gcgctctgcg   1440

cagccccgag aggcggccca cgcgcattgg cctttacctg agcttcggcg acggcgtcct   1500

ctccttctac gatgccagcg acgccgacgc gctcgtgccg ctttttgcct tccacgagcg   1560

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tgagcagaca ttgcggcact gcactctagc ctgggtgaca agagtgagac tctgtctg   2098
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<210> 4635

<211> 2332

<212> DNA

<213> Homo sapiens

<400> 4635

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gactcgcctc tccgcgcccg acccgggagt agcggacaca ccccctcccg gcccggctgt    60
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ccgcctccgc ccagcctttc ctcagcctgc ttcatttttc tcccagtcgt ccagcctccc    120

ggtttccgac tttgcactaa gagggatgca ctctggaaaa ccacattgcg cggtcacatc    180

ttgtttggag aagaggccag gcttttgcat cttagagtat acgttcacct tttcaagggc    240

ctggcataga tttgattaat cagcctggaa taccctgttc ctgccgacct ggccgttttt    300

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gggtccccac cttgagctag acgtgaagtt gacccctggg ctgcagcatg gctgtcgccc    420

tcgactctca gatcgacgcg cccctggagg ttgagggatg cctaataatg aaggtggaaa    480

aggaccctga gtgggcatca gagcccattc tggaaggatc ggatagctct gagaccttcc    540

gcaaatgctt caggcaattc tgttatgagg atgtgactgg accccatgaa gctttcagta    600

aactctggga actttgctgc cggtggctga agccagaaat gcgttccaag gagcaaatac    660

ttgagctgct ggtgattgag cagtttctca ccattttacc cgagaagatt caggcttggg    720

cacagaagca gtgtccgcaa agtggagagg aagcggtggc cctggtagtg catttggaga    780

aagagactgg aagactaaga cagcaggtca gcagtcccgt gcaccgggag aagcactccc    840

cacttggagc agcgtgggag gtggcagact tccagccaga gcaggtggag acccaaccca    900

gggcggtgtc tcgggaggaa cctggaagcc tccactcagg acaccaggaa cagctgaacc    960

gaaagcgaga acgtcggccc ttacccaaga atgctcggcc ttctccctgg gttcctgccc   1020

ttgctgatga atggaatacc ctagatcagg aagtgacaac cacacggctt cctgctgggt   1080

cccaggaacc agtgaaagat gtccacgtgg ccagaggctt ttcctacaga aagagtgtgc   1140

atcagattcc tgcccaaagg gacctctacc gggatttcag gaaggagaat gttgggaacg   1200

tggtctccct gggaagtgca gtgtctacat ctaacaagat aacccggttg gaacagagaa   1260

aggagccatg gactctaggt ctgcattcct ctaacaagag aagtatccta cgaagcaact   1320

acgtcaagga aaagtcagtt catgctattc aggtccctgc aaggagtgca ggaaaaacat   1380

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gcttccttag aaccccagaa cagtgtcgaa ccaagttcaa aagtctccag aaaagctatc   1620

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tccatggtgc ccctgtcttg tttcagaatc tcagtggtaa gaattgtgct ttgtttctct   1920

ggtaggaaaa cagatgtgtg atcttgtgga aaaaggagta gaccagaagt ggccaaaccc   1980

ggggggtgct gtcacacaca cctcaccact ttcactgtgg tgtggccaca tcactgaagt   2040

actctcaggt gcttgctgct gcccccattg cagtcagagt aacagctcca agtggccgtg   2100

gagaagtcgt tttcacttta gagcacagca tggattttga gtgtttgggt ccttgtggaa   2160

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gcaatcaatt gtattgcatt ataagtcaag catgcattat tacgttatct aaaataacca   2280
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<210> 4636

<211> 2270

<212> DNA

<213> Homo sapiens

<400> 4636

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ctgttccttg gggctgatcc tgggccactt ttctctctga gccctctcct caggtgatct    180
cttccattct cttggtatta catagcatcc atgtgttggt gactcacaaa tttttttgag    240
cccagacatg tcccatgtgt tccaactcga ggtctaact gcccctgtga catctgacaa     300
acatctccag cttcatgtgt tcaaaagggc aagggttgat tggaccatgg tactgttctc    360
ccttacctgc ccaagaaggc tatccccact caccccgct catcttgcct tgtaaagggc     420
atcaccacct atatctgctc caggcagaaa ccacacgctc cccagtcctg catcaatcct    480
gcctcctcca tctccatgat gcctcttaac tccctccacc tctccatctc catggccacc    540
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ctccattaga cacagccaga ggccacctcc taaaatagga gctgacttat gtcccttttc    660
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gccctgtgca catgtcccct gcatgtctcc ccacttcctc tcctaccctg ccctccttag    780
gccctggcct ccctcatctt ctcctggttc ccggagcaca ctgagctctt ttccttcaca    840
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catcttaatg taatcacctc tcttatctcc atatccattc acatacgggc cattgcgagc   1260
taccggggat taggggttca acacataaat tggggtgggg ggggtgcagc tcagcccata   1320
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gcctcaggag acaatcactc taacctcctg cccttccttt tacctgccca agacaggact   1620

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ccatatcctg ctagaaggaa tgctgctgtc atgaagcttc cataaaaacc aagggggactg   1740

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ggagggcaca ggaagctcca tgcccttcct tcatacctca ccctatgcat ctctttatct   1860

gtatctttta taatatcctt tataataaac cagtaaatgt atttcccttta gttttgtgag   1920

ccactccagc aaattgaacc tacagaggga attgtgggaa cctcaacttg aagccagtcg   1980

gtcagaagtt ccaaaggtca cccgggcgcg gtggttcacg cctgtaatcc cagcactttg   2040

ggaggccgag gcgggtggat caggagtttg agaccagcct agccaacatg gtgaaaccct   2100

gtctttactg aaaatacgaa aaattagctg ggcatcgtgg tgggcgcctg taatcccagc   2160

tacttgggag gctgaagcag gagaattgct tgagcctgag aggcagaggc tgcagtgagc   2220

tgagatcgcg ccactgcact ccagcccggg caacagagtg agactgtctc              2270
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<210> 4637

<211> 1935

<212> DNA

<213> Homo sapiens

<400> 4637

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gggcaggagc aggtgctaat ccagcccctc aacaactccc agggcccatt cagtggacga    180

gaacatctga tcaggcgcaa atggtccttg accccagcc cttctgctga ggcccagaga    240

cctgagcagc tctgcaaggt tctaacagaa aagaagaagc cgacgtgggg caggccttcg    300

cgggactggc gggagcggag gaacgctatc cggctcacca gcgagcacac ggtggagacc    360

ctggtggtgg ccgacgccga catggtgcag taccacgggg ccgaggccgc ccagaggttc    420

atcctgaccg tcatgaacat ggtatacaat atgtttcagc accagagcct gggggattaaa   480

attaacattc aagtgaccaa gcttgtcctg ctacgacaac gtcccgctaa gttgtccatt    540

gggcaccatg gtgagcggtc cctggagagc ttctgtcact ggcagaacga ggagtatgga    600

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tgggtgaaag gccggaaccc aagtgacctc tcttggtcct cctgcagccg agatgacctt    960
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gaaaacttcc tcaagtcaaa agtcagcacc tgcttgctag tcacggaccc cagaagccag  1020

cacacagtac gcctcccgca caagctgccg ggcatgcact acagtgccaa cgagcagtgc  1080

cagatcctgt ttggcatgaa tgccaccttc tgcagaaaca tggagcatct aatgtgtgct  1140

ggactgtggt gcctggtaga aggagacaca tcctgcaaga ccaagctgga ccctcccctg  1200

gatggcaccg agtgtggggc agacaagtgg tgccgcgcgg gggagtgcgt gagcaagacg  1260

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ccctgcgggc cctacgagac tgatctctgc gtgcacggca agtgccagaa aatcggctgt  1680

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gctgccgtca ttcctgctgg agctcggagg atccgtgtgg tggaggataa acctgcccac  1860

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gatgatcagt ctggt                                                    1935
```

<210> 4638

<211> 3016

<212> DNA

<213> Homo sapiens

<400> 4638

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ggtagatgaa tgggatgatg cagtggttgt catgacgatg agtgctagag aagtcaggaa   180

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catgtcagtg ccccctgcta ggctgtgggc tttagggaac ccatggtgat caagcaaatg   660
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ggtgcccctg agcagatagg cctggatgag agtggtggtg gtggcggcag tgaccctgga    840

gaggccccca cacgtgctgc tcctggggaa cttcgttctg cacggggccc actcagctct    900

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aacttcctga cactacttcc atatttgcac taaaggagat tcagctacaa aaggaggcca   2640

gccttcggtc ttcgtcgatg cctgactcag gtaggtatag ccccttgtct tcctccctgc   2700

cccacccacc tacctgctta cccaccaaca gccatctgct ctgctttccc ccacaggcag   2760

gccagctttc cgcgtggtgg acaccgagtt ctaagccaca gaccgaggcc ccagcaggca   2820
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gcggctggag ggatgccaca cccctcacag ggcagccccc aactacatct tccctgctta  2880

ctctctgcct acctgcctga gccatgttca cctgcccact tgtcccctgc tgcctgccca  2940

aacaccccac cattggcctg tcaacccacc cattggcctg tctgctgggt gctaacaaag  3000

ctctcatcac tccttc                                                   3016
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<210> 4639

<211> 2740

<212> DNA

<213> Homo sapiens

<400> 4639

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acagcctcga cttcacaggc tcaggtgatt ttcccacctc agcctccaga gtagccggga   180

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